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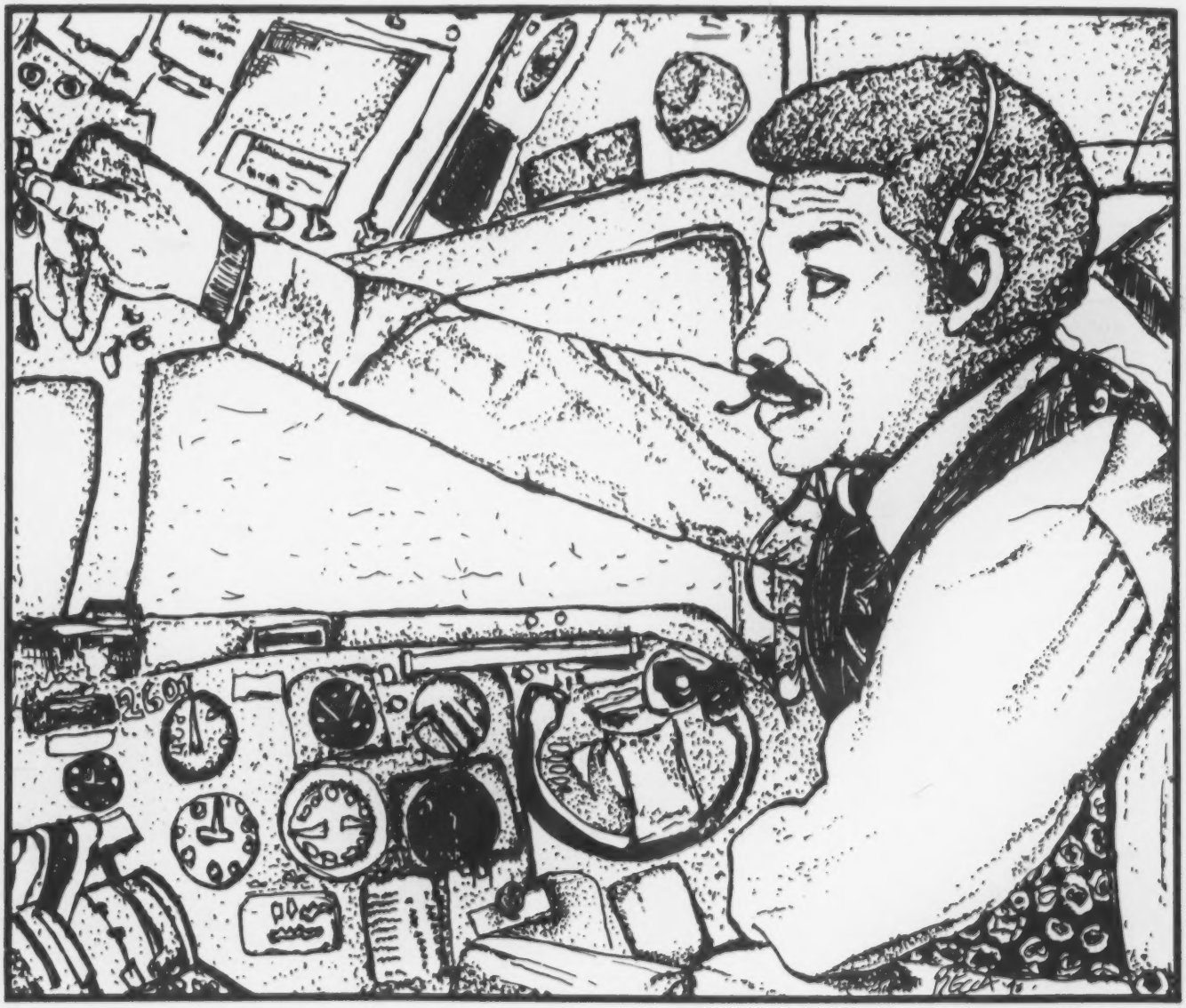

Occupational Employment in Selected Nonmanufacturing Industries, North Carolina, 1988

Employment Security Commission of North Carolina,
Labor Market Information Division

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Occupational Employment

in Selected

Nonmanufacturing

Industries

in North Carolina

1988

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Introduction

The Occupational Employment Statistics (OES) program is a cooperative effort of the Bureau of Labor Statistics and the nation's State Employment Security Agencies. In North Carolina, the Labor Market Information Division bears the responsibility for the collection, analysis and distribution of information relating to the occupational staffing patterns of the state's industries. Industries are surveyed on a three-year rotating cycle to increase the cost effectiveness of the data collection and to reduce the reporting burden of employers who are asked to participate in the study. Research done by the Bureau of Labor Statistics has indicated that staffing patterns tend to remain relatively static, and therefore useful, over this time span. The project looks at only nonagricultural wage and salary employment. Data for self-employment, agriculture, and unpaid family members are not included. The three survey rounds are defined as follows:

Manufacturing and Hospitals

Nonmanufacturing Industries

Selected Nonmanufacturing Industries and Government

When viewed together, the results of these three survey rounds give a clear and accurate picture of occupations and industries in North Carolina which may be utilized by educators, counselors, and planners in a number of ways including, but not limited to the following:

Curriculum and Training Applications
- for assessment of current and future occupational needs
- for planning study curricula and development of training programs in accordance with changing job requirements

Career and Job Counseling
- for guidance of students, trainees, and job seekers in career or job selection
- for background in applicant referrals to industries and locations where specific skills are needed

Industry and Business Administration
- for improvement of workers selection by more equitably matching job training with occupational needs
- for policy formulation and planning in terms of present and anticipated occupation patterns
- for increased cooperation between industry and educational planners in determining needed program emphasis to meet the needs of a changing work force

This is the seventh report in the OES series based on a survey of covered residual nonmanufacturing establishments as defined in the 1987 edition of the Standard Industrial Classification Manual (SIC). Data for firms engaged in Transportation, Communications, and Public Utilities; Wholesale and Retail Trade; Educational Services; and Local, State, and Federal Government are included in this publication.

In 1988 there were 147,900 persons employed in Transportation, Communications, and Public Utilities; 686,000 in Wholesale and Retail Trade; 31,100 in Educational Services; and 458,700 in Government. This represents 44.3% of all nonagricultural wage and salary employment in North Carolina.

SIC 41

LOCAL AND SUBURBAN TRANSIT AND INTERURBAN HIGHWAY PASSENGER TRANSPORTATION

May 1988

This classification includes those establishments engaged in furnishing local and suburban passenger transportation as well as highway passenger transportation. Highway passenger terminals or maintenance facilities are also included in this major group.

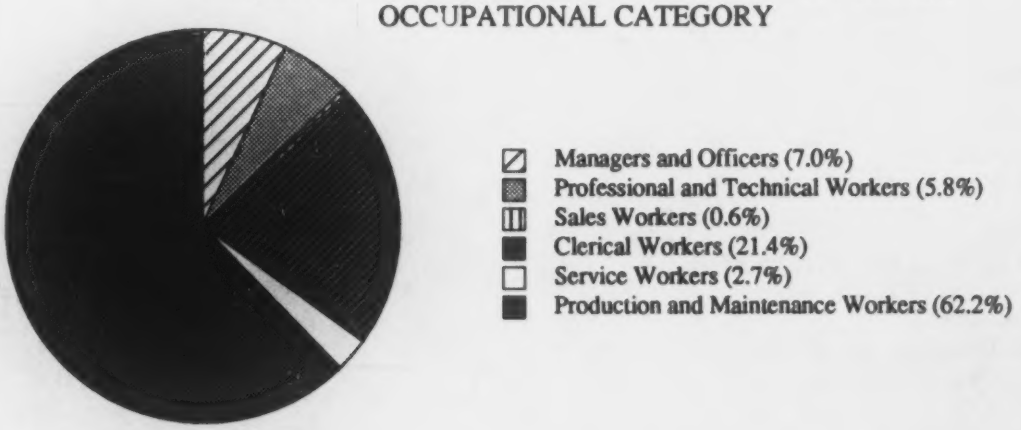
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	3,680	NA	100.0
Managers and Officers	260	NA	7.0
Communication, Transportation, and Utilities Operations Managers	90	32.1	2.4
General Managers and Top Executives	140	11.4	3.8
Other Managers and Administrators	30	NA	0.8
Professional and Technical Workers	210	NA	5.8
Emergency Medical Technicians	190	30.2	5.1
Other Professional and Technical Workers	20	NA	0.7
Sales Workers	20	NA	0.6
Sales Agents, Selected Business Services	20	NA	0.6
Clerical Workers	800	NA	21.4
Reservation and Transportation Ticket Agents	360	4.3	9.8
Secretaries	60	13.3	1.6
Bookkeeping, Accounting, and Auditing Clerks	60	12.4	1.5
General Office Clerks	40	21.3	1.0
Dispatchers - except Police, Fire, and Ambulance	190	19.1	5.1
Other Clerical and Administrative Workers	90	NA	2.4
Service Workers	100	NA	2.7
Production and Maintenance Workers	2,290	NA	62.2
Automotive Mechanics	30	29.7	0.9
Bus, Truck, and Diesel Mechanics	160	9.8	4.4
Bus Drivers	1,150	3.9	31.2
Bus Drivers, School	120	18.7	3.4
Taxi Drivers	660	9.9	17.9
Mechanic and Repairer Helpers	20	18.0	0.5
Vehicle Washers and Equipment Cleaners	50	6.6	1.3
Other Helpers, Laborers, and Material Movers - Hand	100	NA	2.6

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 1
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Bus Drivers	1,150	31.2
Taxi Drivers	660	17.9
Reservation and Transportation Ticket Agents	360	9.8
Emergency Medical Technicians	190	5.1
Dispatchers - except Police, Fire, and Ambulance	190	5.1

FIGURE 1
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 42

MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING

May 1988

This major group includes establishments furnishing local or long-distance trucking, or transfer services, or those engaged in the storage of farm products, furniture, and other household goods, or commercial goods of any nature. The operation of terminal facilities for handling freight, with or without maintenance facilities, is also included.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	57,880	NA	100.0
Managers and Officers	3,590	NA	6.2
Financial Managers	120	22.2	0.2
Personnel and Labor Relations Managers	100	21.8	0.2
Marketing, Advertising, and Public Relations Managers	120	19.3	0.2
Administrative Services Managers	70	26.9	0.1
Communications, Transportation and Utilities Operations Managers	1,000	17.3	1.7
General Managers and Top Executives	1,840	14.0	3.2
Other Managers and Administrators	340	NA	0.6
Professional and Technical Workers	470	NA	0.8
Accountants and Auditors	120	31.9	0.2
Other Financial Specialists	20	NA	0.1
Personnel and Labor Relations Specialists	60	28.4	0.1
Other Management Support Workers	80	NA	0.1
Computer Programmers	100	21.1	0.2
Other Professional and Technical Workers	90	NA	0.2
Sales Workers	1,350	NA	2.3
Sales Supervisors	380	26.8	0.7
Sales Agents, Selected Business Services	630	23.4	1.1
Cashiers	150	10.1	0.2
Other Sales and Related Workers	190	NA	0.3
Clerical Workers	8,980	NA	15.7
Credit Checkers	40	32.8	0.1
Adjustment Clerks	320	15.5	0.6
Secretaries	950	19.3	1.6
Personnel Clerks	40	21.2	0.1
Correspondence Clerks	40	25.9	0.1
File Clerks	70	19.2	0.1
Bookkeeping, Accounting and Auditing Clerks	900	26.2	1.6
Payroll and Timekeeping Clerks	180	13.8	0.3
Billing, Cost, and Rate Clerks	1,000	14.1	1.7
General Office Clerks	1,100	14.1	1.9

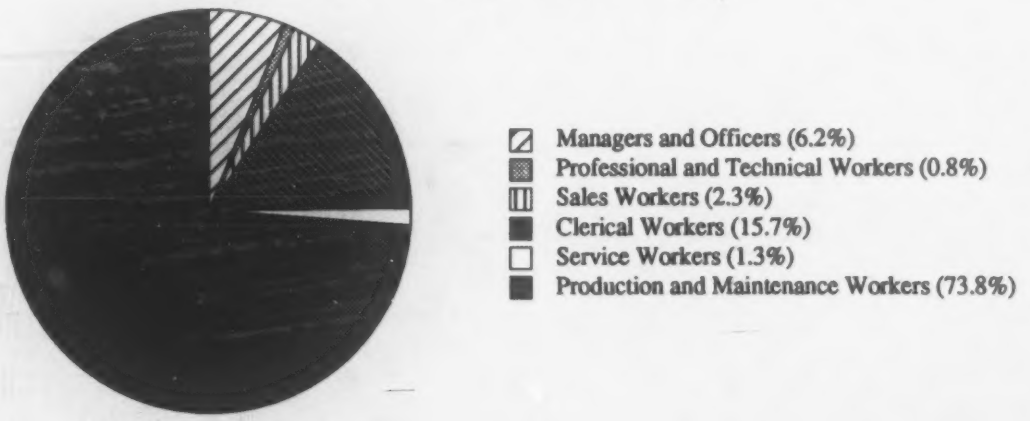
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Billing, Posting, and Calculating Machine Operators	120	28.8	0.2
Computer Operators	40	34.6	0.1
Peripheral EDP Equipment Operators	40	32.1	0.1
Data Entry Keyers	120	17.5	0.2
Switchboard Operators	70	25.0	0.1
Production, Planning, and Expediting Clerks	150	23.8	0.2
Stock Clerks, Stockroom or Warehouse	820	32.9	1.4
Traffic, Shipping, and Receiving Clerks	460	26.3	0.8
Other Clerical and Administrative Workers	2,520	NA	4.4
Service Workers	730	NA	1.3
Production and Maintenance Workers	42,740	NA	73.8
Mechanic and Repairer Supervisors	220	15.2	0.4
Transportation Supervisors	590	22.5	1.0
Laborer Supervisors	540	15.3	0.9
Transportation Inspectors	60	25.7	0.1
Bus, Truck, and Diesel Mechanics	2,750	11.1	4.7
Tire Repairers and Changers	220	29.0	0.4
Other Mechanics, Installers and Repairers	780	NA	1.3
Truck Drivers, Heavy - inc. Tractor-Trailer	22,160	7.1	38.3
Truck Drivers, Light - inc. Delivery and Route Workers	5,190	25.4	9.0
Industrial Truck and Tractor Operators	1,820	17.3	3.2
Other Helpers, Laborers and Material Movers - Hand	8,410	NA	14.5

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 2
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Truck-Drivers, Heavy - inc. Tractor-Trailer	22,160	38.3
Truck Drivers, Light - inc. Delivery and Route Workers	5,190	9.0
Bus, Truck, and Diesel Mechanics	2,750	4.7
General Managers and Top Executives	1,840	3.2
Industrial Truck and Tractor Operators	1,820	3.2

FIGURE 2
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 45

TRANSPORTATION BY AIR

June 1988

Establishments in this group are engaged in furnishing domestic and foreign transportation by air and also include those operating airports and flying fields and furnishing terminal services. Services which may use airplanes incidentally, are classified according to the service performed.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	17,650	NA	100.0
Managers and Officers	510	NA	2.8
Financial Managers	30	30.1	0.2
Personnel and Labor Relations Managers	20	17.9	0.1
Marketing, Advertising, and Public Relations Managers	40	11.8	0.2
Administrative Services Managers	20	18.6	0.1
Communications, Transportation, and Utilities Operations Managers	120	10.0	0.7
General Managers and Top Executives	220	11.7	1.2
Other Managers and Administrators	60	NA	0.3
Professional and Technical Workers	1,000	NA	5.7
Accountants and Auditors	70	17.0	0.4
Personnel, Training, and Labor Relations Specialists	20	15.7	0.1
Other Management Support Workers	190	NA	1.1
Other Engineering Technicians and Technologists	70	NA	0.4
Teachers and Instructors, Vocational Education	140	14.5	0.8
Other Professional and Technical Workers	510	NA	2.9
Sales Workers	360	NA	1.9
Sales Supervisors	150	18.2	0.8
Sales Agents, Selected Business Services	110	16.9	0.6
Travel Agents	20	21.3	0.1
Other Sales and Related Workers	80	NA	0.4
Clerical Workers	7,660	NA	43.4
Clerical and Administrative Supervisors	440	5.2	2.5
Adjustment Clerks	50	12.9	0.3
Reservation and Transportation Ticket Agents	2,520	13.7	14.3
Secretaries	300	11.0	1.7
Receptionists and Information Clerks	20	23.3	0.1
Bookkeeping, Accounting, and Auditing Clerks	690	21.0	3.9
Payroll and Timekeeping Clerks	40	24.0	0.2
Billing, Cost, and Rate Clerks	20	27.8	0.1
General Office Clerks	230	16.1	1.3

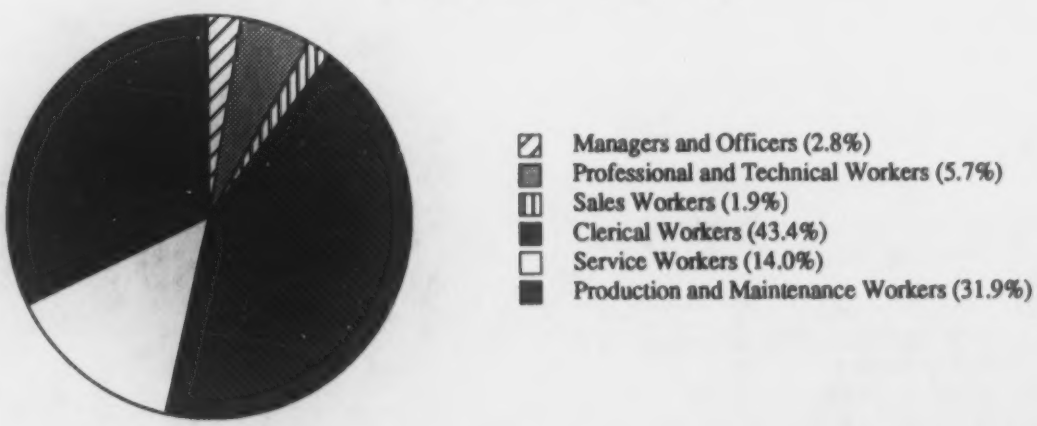
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Dispatchers, except Fire, Police, and Ambulance	140	9.4	0.8
Production, Planning, and Expediting Clerks	100	18.4	0.6
Transportation Agents	2,310	15.3	13.1
Other Clerical and Administrative Workers	800	NA	4.5
Service Workers	2,480	NA	14.0
Service Supervisors	110	11.2	0.6
Cleaning and Building Service Workers	50	22.3	0.3
Flight Attendants	2,300	19.0	13.0
Other Service Workers	20	NA	0.1
Production and Maintenance Workers	5,630	NA	31.9
Mechanic and Repairer Supervisors	180	12.5	1.0
Transportation Supervisors	90	15.7	0.5
Other Supervisors	80	NA	0.5
Maintenance Repairers, General Utility	60	17.3	0.3
Automotive Mechanics	80	5.6	0.4
Aircraft Mechanics	1,280	9.5	7.3
Aircraft Engine Specialists	30	26.7	0.2
Radio Mechanics	160	21.5	0.9
Truck Drivers, Light - inc. Delivery and Route Workers	440	20.3	2.5
Aircraft Pilots and Flight Engineers	2,220	17.7	12.6
Vehicle Washers and Equipment Cleaners	170	15.8	1.0
Other Helpers, Laborers, and Material Movers - Hand	840	NA	4.8

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 3
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Reservation and Transportation Ticket Agents	2,520	14.3
Transportation Agents	2,310	13.1
Flight Attendants	2,300	13.0
Aircraft Pilots and Flight Engineers	2,220	12.6
Aircraft Mechanics	1,280	7.3

FIGURE 3
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 47

TRANSPORTATION SERVICES

April 1988

This major group includes establishments furnishing services incidental to transportation, such as forwarding and packing services, and the arrangement of passenger and freight transportation.

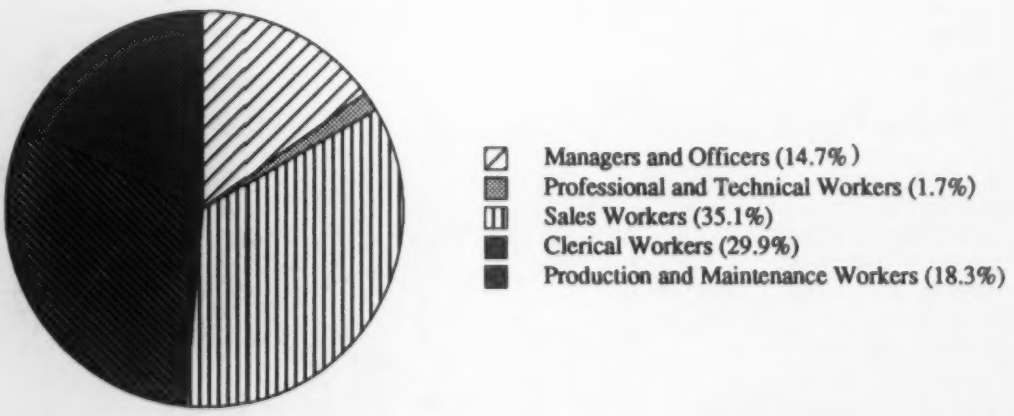
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	3,500	NA	100.0
Managers and Officers	520	NA	14.7
Communications, Transportation, and Utilities Managers	110	20.7	3.1
General Managers and Top Executives	410	9.6	11.6
Professional and Technical Workers	60	NA	1.7
Accountants and Auditors	40	29.6	1.3
Other Professional and Technical Workers	20	NA	0.4
Sales Workers	1,230	NA	35.1
Sales Supervisors	60	28.4	1.8
Sales Agents, Selected Business Services	60	20.9	1.8
Travel Agents	1,080	6.6	30.8
Other Sales and Related Workers	30	NA	0.9
Clerical Workers	1,040	NA	29.9
Clerical and Administrative Supervisors	80	21.7	2.3
Secretaries	80	19.2	2.4
Receptionists and Information Clerks	40	24.2	1.2
Bookkeeping, Accounting, and Auditing Clerks	180	11.7	5.2
General Office Clerks	80	23.9	2.4
Messengers	70	28.7	1.9
Dispatchers - except Police, Fire, and Ambulance	90	26.6	2.6
Traffic, Shipping, and Receiving Clerks	90	29.1	2.5
Other Clerical and Administrative Workers	330	NA	9.5
Production and Maintenance Workers	630	NA	18.3
Other Mechanics, Installers, and Repairers	100	NA	2.9
Other Hand Workers	20	NA	0.5
Truck Drivers, Light - inc. Delivery and Route Workers	100	19.3	2.9
Other Transportation Workers	100	NA	2.7
Other Helpers, Laborers, and Material Movers - Hand	310	NA	8.8

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 4
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Travel Agents	1,080	30.8
General Managers and Top Executives	410	11.6
Bookkeeping, Accounting, and Auditing Clerks	180	5.2
Communications, Transportation, and Utilities Managers	110	3.1
Truck Drivers, Light - inc. Delivery and Route Workers	100	2.9

FIGURE 4
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (14.7%)
Professional and Technical Workers (1.7%)
Sales Workers (35.1%)
Clerical Workers (29.9%)
Production and Maintenance Workers (18.3%)

SIC 48

COMMUNICATIONS

June 1988

This major group includes establishments furnishing point-to-point communication service, whether by wire or radio, and whether intended to be received aurally or visually. Radio and television broadcasting and services for the exchange or recording of messages are also included.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	27,620	NA	100.0
Managers and Officers	1,900	NA	6.9
Financial Managers	150	11.0	0.5
Personnel and Labor Relations Managers	20	14.3	0.1
Marketing, Advertising, and Public Relations Managers	230	15.3	0.8
Administrative Service Managers	20	24.5	0.1
Engineering, Mathematical, and Natural Science Managers	100	18.0	0.3
Communications, Transportation, and Utilities Managers	460	12.1	1.6
General Managers and Top Executives	640	7.3	2.3
Other Managers and Administrators	280	NA	1.0
Professional and Technical Workers	5,760	NA	20.4
Accountants and Auditors	130	27.7	0.4
Budget Analysts	20	25.7	0.1
Other Financial Specialists	40	NA	0.1
Personnel and Labor Relations Specialists	40	17.2	0.1
Other Management Support Workers	410	NA	1.5
Civil Engineers - inc. Traffic	30	12.9	0.1
Electrical and Electronic Engineers	730	9.5	2.6
Electrical and Electronic Engineering Technicians and Technologists	320	18.7	1.1
Drafters	150	17.7	0.5
Other Engineering Technicians and Technologists	120	NA	0.4
System Analysts, EDP	220	8.7	0.8
Computer Programmers	90	21.3	0.3
Teachers and Instructors, Vocational Education	20	31.6	0.1
Writers and Editors	130	14.0	0.5
Public Relations Specialists	70	13.1	0.2
Reporters and Correspondents	320	8.7	1.1
Broadcast News Analysts	110	24.7	0.4
Announcers, Radio and Television	1,340	8.9	4.8
Photographers	90	34.9	0.3
Camera Operators, Television and Motion Pictures	300	12.7	1.1
Broadcast Technicians	640	14.7	2.3
Artists	20	19.6	0.1

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Producers, Directors, and Actors	220	14.9	0.8
Other Professional and Technical Workers	200	NA	0.7
Sales Workers	1,820	NA	6.6
Sales Supervisors	220	17.0	0.8
Sales Agents, Selected Business Services	480	17.1	1.8
Sales Agents, Advertising	700	8.4	2.6
Cashiers	100	20.9	0.4
Other Sales and Related Workers	320	NA	1.2
Clerical Workers	10,600	NA	38.3
Clerical and Administrative Supervisors	1,460	4.1	5.3
Adjustment Clerks	270	14.4	1.0
Bill and Account Collectors	200	19.6	0.7
Secretaries	420	8.7	1.5
Stenographers	90	11.2	0.3
Receptionists and Information Clerks	140	14.8	0.5
Typists	50	23.2	0.2
Typists, Word Processing Equipment	40	30.6	0.2
Personnel Clerks	20	16.6	0.1
File Clerks	20	23.5	0.1
Order Clerks	330	27.4	1.2
Statistical Clerks	30	22.3	0.1
Customer Service Representatives	1,520	8.9	5.5
Bookkeeping, Accounting, and Auditing Clerks	540	12.9	2.0
Payroll and Timekeeping Clerks	20	34.5	0.1
Billing, Cost, and Rate Clerks	160	31.4	0.6
General Office Clerks	1,360	8.6	4.9
Computer Operators	170	15.0	0.6
Switchboard Operators	50	7.1	0.2
Central Office Operators	2,840	13.4	10.3
Other Communications Equipment Operators	90	NA	0.3
Dispatchers - except Police, Fire and Ambulance	150	11.7	0.5
Production, Planning, and Expediting Clerks	40	9.6	0.2
Stock Clerks, Stockroom or Warehouse	30	30.0	0.1
Traffic, Shipping, and Receiving Clerks	60	11.2	0.2
Other Clerical and Administrative Workers	510	NA	1.8
Service Workers	310	NA	1.1
Service Supervisors	190	11.9	0.7
Cleaning and Building Service Workers	120	19.7	0.4
Production and Maintenance Workers	7,210	NA	25.6
Mechanic and Repairer Supervisors	330	19.7	1.2
Other Inspectors, Testers, and Related Occupations	40	NA	0.1
Maintenance Repairers, General Utility	160	20.4	0.6
Automotive Mechanics	30	9.4	0.1
Central Office and PBX Installers and Repairers	2,180	7.3	7.9

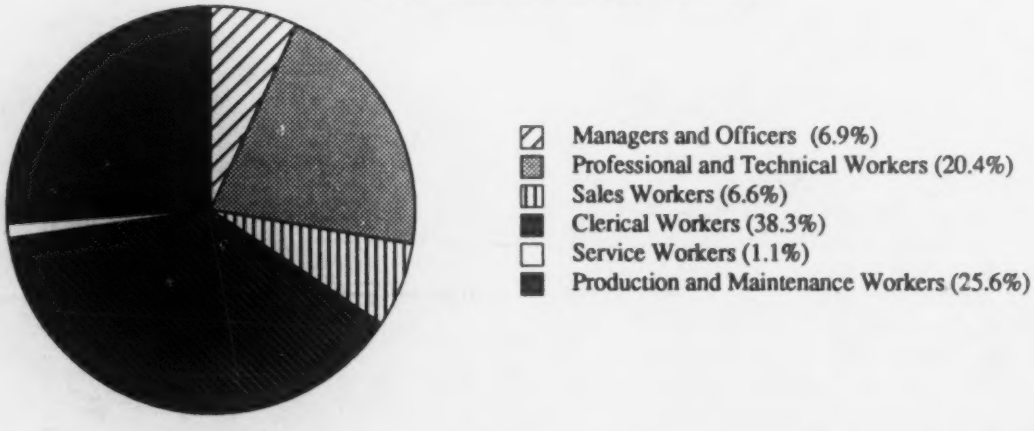
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Frame Wirers	160	12.3	0.6
Other Communications Equipment Mechanics, Installers, and Repairers	240	NA	0.8
Telephone and Cable Television Line Installers and Repairers	2,400	8.5	8.7
Station Installers and Repairers, Telephone	1,180	14.7	4.3
Other Electrical and Electronic Equipment Mechanics, Installers, and Repairers	370	NA	1.3
Mechanic and Repairer Helpers	30	33.5	0.1
Other Helpers, Laborers, and Material Movers - Hand	90	NA	0.3

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 5
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Central Office Operators	2,840	10.3
Telephone and Cable Television Line Installers and Repairers	2,400	8.7
Central Office and PBX Installers and Repairers	2,180	7.9
Customer Service Representatives	1,520	5.5
Clerical and Administrative Supervisors	1,460	5.3

FIGURE 5
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 49

ELECTRIC, GAS, AND SANITARY SERVICES

April 1988

This major group includes establishments engaged in the generation, transmission and/or distribution of electricity, steam or combination electric and gas, and other utility services. Water and irrigation systems and sanitary systems engaged in the collection and disposal of garbage, sewage, and other waste by means of destroying or processing materials, are also included.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	28,960	NA	100.0
Managers and Officers	1,620	NA	5.5
Financial Managers	100	11.4	0.3
Personnel and Labor Relations Managers	70	7.2	0.2
Purchasing Managers	20	4.8	0.1
Marketing, Advertising, and Public Relations Managers	100	13.3	0.4
Administrative Services Managers	100	6.0	0.3
Engineering, Mathematical, and Natural Science Managers	200	9.8	0.7
Communications, Transportation, and Utilities Managers	200	11.1	0.7
General Managers and Top Executives	450	7.7	1.6
Other Managers and Administrators	380	NA	1.3
Professional and Technical Workers	7,820	NA	25.4
Accountants and Auditors	430	6.3	1.5
Budget Analysts	70	5.9	0.2
Other Financial Specialists	70	NA	0.2
Purchasing Agents and Buyers - except Farm Products	100	13.0	0.3
Personnel and Labor Relations Specialists	250	5.3	0.9
Other Management Support Workers	220	NA	0.8
Civil Engineers - inc. Traffic	370	4.7	1.3
Electrical and Electronic Engineers	1,060	2.1	3.6
Industrial Engineers - except Safety	180	6.4	0.6
Safety Engineers - except Mining	110	6.2	0.4
Mechanical Engineers	160	5.1	0.6
Other Engineers	470	NA	1.6
Electrical and Electronic Engineering Technicians and Technologists	790	2.6	2.7
Mechanical Engineering Technicians and Technologists	70	7.4	0.2
Drafters	570	7.6	2.0
Estimators and Drafters, Utilities	200	16.4	0.7
Other Engineering and Related Technicians and Technologists	330	NA	1.1
Life Scientists	220	4.7	0.8

SIC 49

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Physical and Life Science Technicians and Technologists	410	6.0	1.4
Systems Analysts, EDP	160	5.4	0.6
Computer Programmers	480	2.8	1.6
Farm and Home Management Advisors	80	9.1	0.3
Health Practitioners, Technologists, Technicians and Related Health Occupations	190	3.7	0.6
Writers and Editors	20	13.2	0.1
Public Relations Specialists	70	12.3	0.2
Other Professional and Technical Workers	740	NA	2.6
Sales Workers	710	NA	2.2
Sales Supervisors	60	15.8	0.2
Sales Agents, Selected Business Services	250	9.8	0.8
Salespersons, Retail	60	16.8	0.2
Cashiers	210	15.0	0.7
Other Sales and Related Workers	130	NA	0.4
Clerical Workers	7,280	NA	24.9
Clerical and Administrative Supervisors	550	5.9	1.9
Adjustment Clerks	190	21.5	0.6
Bill and Account Collectors	180	20.8	0.6
Secretaries	650	2.9	2.2
Stenographers	260	9.5	0.9
Receptionists and Information Clerks	30	15.5	0.1
Typists	90	6.9	0.3
Typists, Word Processing Equipment	100	7.1	0.3
Personnel Clerks	30	11.4	0.1
Order Clerks	50	14.3	0.2
Customer Service Representatives, Utilities	970	6.8	3.3
Bookkeeping, Accounting and Auditing Clerks	490	11.2	1.7
Payroll and Timekeeping Clerks	50	7.7	0.2
Billing, Cost, and Rate Clerks	60	26.4	0.2
General Office Clerks	1,090	5.4	3.8
Computer Operators	110	2.4	0.4
Data Entry Keyers	80	7.6	0.3
Other Office Machine Operators	130	NA	0.5
Switchboard Operators	40	8.5	0.1
Mail Clerks - except Mail Machine and Postal Service	20	8.3	0.1
Dispatchers - except Police, Fire and Ambulance	150	15.1	0.5
Meter Readers, Utilities	920	7.0	3.2
Stock Clerks, Stockroom or Warehouse	360	6.5	1.2
Other Clerical and Administrative Workers	680	NA	2.3
Service Workers	180	NA	0.6
Service Supervisors	20	33.3	0.1
Cleaning and Building Service Occupations	110	13.1	0.4

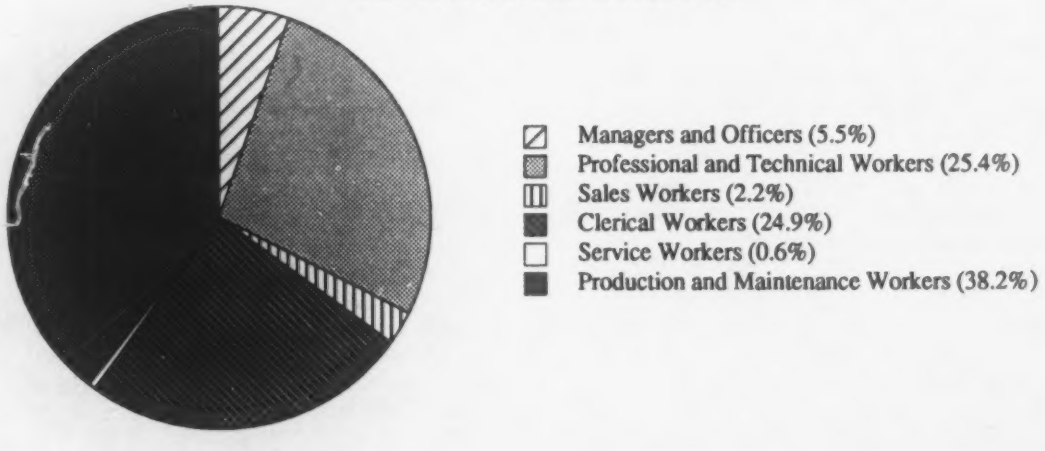
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Other Service Workers	50	NA	0.2
Production and Maintenance Workers	11,360	NA	38.2
Mechanic and Repairer Supervisors	570	6.4	2.0
Construction Trades Supervisors	100	30.5	0.4
Other Supervisors	150	NA	0.5
Precision Inspectors, Testers, and Graders	150	7.7	0.5
Other Inspectors and Testers	90	NA	0.3
Machinery Maintenance Mechanics, Water or Power Generation Plant	1,120	7.0	3.9
Maintenance Repairers, General Utility	300	11.2	1.0
Automotive Mechanics	190	7.2	0.7
Bus, Truck, and Diesel Mechanics	80	7.4	0.3
Electronics Repairers, Commercial and Industrial Equipment	170	18.0	0.6
Powerhouse, Substation and Relay Electricians	580	4.9	2.0
Electrical Powerline Installers and Repairers	2,500	6.0	8.6
Other Electrical and Electronic Equipment Mechanics, Installers, and Repairers	250	NA	0.9
Electric Meter Installers and Repairers	220	12.6	0.8
Mechanical Control and Valve Installers and Repairers	270	26.7	0.9
Gas Appliance Repairers	220	18.9	0.7
Other Mechanics, Installers, and Repairers	170	NA	0.6
Electricians	530	5.7	1.8
Painters and Paperhangers	110	7.5	0.4
Plumbers and Pipefitters	280	10.3	1.0
Other Construction Trades Workers	150	NA	0.5
Other Precision Workers	90	NA	0.3
Other Machine Operators	140	NA	0.5
Welders and Cutters	250	9.6	0.8
Gas Plant Operators	70	27.2	0.2
Power Generating Plant Operators	220	20.0	0.8
Power Distributors and Dispatchers	390	13.0	1.3
Other Plant and System Operators	520	NA	1.8
Truck Drivers, Heavy - inc. Tractor-Trailer	230	23.2	0.8
Truck Drivers, Light - inc. Delivery and Route Workers	20	25.7	0.1
Operating Engineers	60	31.2	0.2
Other Material Moving Equipment Operators	150	NA	0.5
Mechanic and Repairer Helpers	190	17.9	0.7
Electrician Helpers	360	11.5	1.2
Other Construction Trades Helpers	80	30.3	0.3
Refuse Collectors	210	12.6	0.7
Other Helpers, Laborers, and Material Movers - Hand	180	NA	0.6

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 6
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Electric Powerline Installer and Repairers	2,500	8.6
Machinery Maintenance Mechanic, Water or Power Generation Plant	1,120	3.9
General Office Clerks	1,090	3.8
Electric and Electronic Engineers	1,060	3.6
Customer Service Representatives	970	3.3

FIGURE 6
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 50

WHOLESALE TRADE - DURABLE GOODS

June 1988

Establishments in this major group are primarily engaged in the wholesale distribution of durable goods. They include motor vehicles and parts, furniture, construction materials, hardware and electrical supplies, and machinery.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	92,560	NA	100.0
Managers and Officers	8,310	NA	8.8
Financial Managers	140	14.4	0.1
Personnel and Labor Relations Managers	70	16.2	0.1
Purchasing Managers	990	17.0	1.1
Marketing, Advertising, and Public Relations Managers	200	21.2	0.2
Administrative Services Managers	420	17.7	0.4
Engineering, Mathematical, and Natural Science Managers	80	34.0	0.1
Communications, Transportation and Utilities Managers	120	31.5	0.1
General Managers and Top Executives	5,870	6.6	6.3
Other Managers and Administrators	420	NA	0.4
Professional and Technical Managers	9,100	NA	9.8
Accountants and Auditors	660	22.7	0.7
Other Financial Specialists	120	NA	0.1
Wholesale and Retail Buyers, except Farm Products	750	16.6	0.8
Cost Estimators	70	27.0	0.1
Other Management Support Workers	540	NA	0.6
Electrical and Electronic Engineers	110	20.4	0.1
Electrical and Electronic Engineering Technicians and Technologists	2,440	30.0	2.6
Other Engineering Technicians and Technologists	720	NA	0.8
Computer Programmers	1,540	18.7	1.7
Designers	110	23.8	0.1
Other Professional and Technical Workers	2,040	NA	2.2
Sales Workers	26,140	NA	28.2
Sales Supervisors	2,480	12.5	2.7
Sales Engineers	920	22.8	1.0
Sales Representatives, Scientific - except Retail	4,860	18.5	5.2
Sales Representatives - except Scientific and Retail	10,380	10.5	11.2
Salespersons, Retail	1,540	32.2	1.6
Salespersons, Parts	4,150	12.4	4.5
Stock Clerks, Sales Floor	1,150	23.9	1.2

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Cashiers	160	22.5	0.2
Other Sales and Related Workers	500	NA	0.5
Clerical Workers	22,350	NA	24.2
Clerical and Administrative Supervisors	1,280	13.8	1.4
Credit Checkers	190	28.5	0.2
Adjustment Clerks	170	28.1	0.2
Secretaries	3,030	13.7	3.3
Receptionists and Information Clerks	700	19.8	0.8
Typists	190	34.8	0.2
Typists, Word Processing Equipment	80	24.7	0.1
Order Clerks	1,690	21.4	1.8
Bookkeeping, Accounting, and Auditing Clerks	2,590	10.6	2.8
Payroll and Timekeeping Clerks	70	13.5	0.1
Billing, Cost, and Rate Clerks	620	23.4	0.7
General Office Clerks	2,880	13.2	3.1
Billing, Posting, and Calculating Machine Operators	360	25.9	0.4
Computer Operators	560	24.9	0.6
Data Entry Keyers	760	16.7	0.8
Other Office Machine Operators	50	NA	0.1
Switchboard Operators	80	20.7	0.1
Stock Clerks, Stockroom or Warehouse	1,700	15.1	1.8
Order Fillers, Wholesale and Retail	2,140	17.5	2.3
Traffic, Shipping, and Receiving Clerks	2,170	14.5	2.3
Other Clerical and Administrative Workers	1,040	NA	1.1
Service Workers	400	NA	0.4
Agricultural, Forestry, and Fishery Workers	160	NA	0.2
Production and Maintenance Workers	26,080	NA	28.2
Mechanic and Repairer Supervisors	1,140	20.2	1.2
Helpers, Laborers, and Material Movers Supervisors - Hand	100	27.4	0.1
Other Production, Construction and Maintenance Supervisors	240	NA	0.3
Other Inspectors and Testers	250	NA	0.3
Maintenance Repairers, General Utility	1,220	30.1	1.3
Automotive Mechanics	870	22.9	0.9
Bus, Truck, and Diesel Mechanics	1,840	30.8	2.0
Data Processing Equipment Repairers	630	18.1	0.7
Other Mechanics, Installers, and Repairers	4,260	NA	4.6
Other Construction Trades Workers	320	NA	0.3
Other Precision Workers	1,260	NA	1.4
Packing and Filling Machine Operators and Tenders	290	34.1	0.3
Other Machine Operators and Tenders	650	NA	0.7
Welders and Cutters	560	31.7	0.6

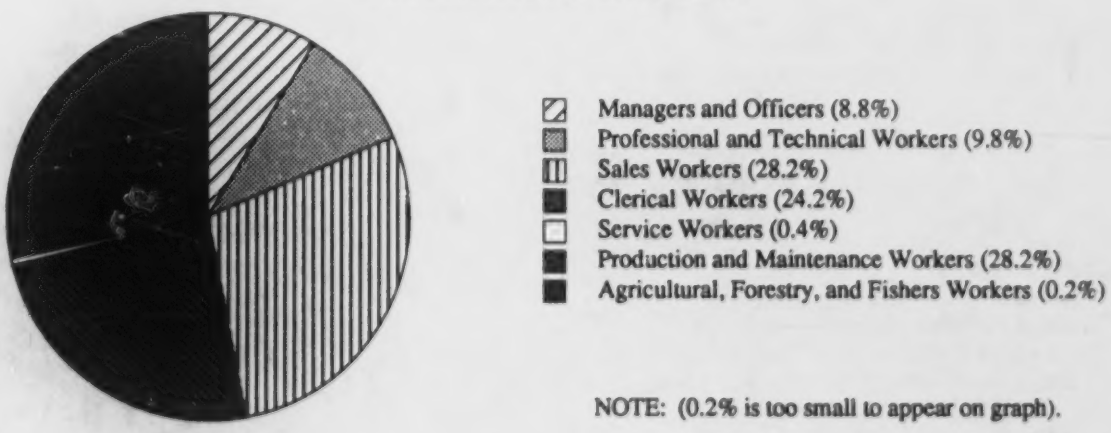
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Assemblers and Fabricators	2,250	31.0	2.4
Other Hand Workers	350	NA	0.4
Truck Drivers, Heavy - inc. Tractor-Trailer	1,740	11.2	1.9
Truck Drivers, Light - inc. Delivery and Route Workers	1,690	15.8	1.8
Other Transportation Workers	670	NA	0.7
Crane and Tower Operators	200	32.2	0.2
Conveyor Operators and Tenders	240	31.8	0.3
Other Material Moving Equipment Operators	1,330	NA	1.4
Material Movers, Hand	1,950	14.6	2.1
Hand Packers and Packagers	680	28.6	0.7
Other Helpers, Laborers, and Material Movers - Hand	1,350	NA	1.5

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 7
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Sales Representatives - except Scientific and Retail	10,380	11.2
General Managers and Top Executives	5,870	6.3
Sales Representatives, Scientific - except Retail	4,860	5.2
Salespersons, Parts	4,150	4.5
Secretaries	3,030	3.3

FIGURE 7
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (8.8%)
Professional and Technical Workers (9.8%)
Sales Workers (28.2%)
Clerical Workers (24.2%)
Service Workers (0.4%)
Production and Maintenance Workers (28.2%)
Agricultural, Forestry, and Fishers Workers (0.2%)

NOTE: (0.2% is too small to appear on graph).

SIC 51

WHOLESALE TRADE - NONDURABLE GOODS

June 1988

Included in this major group are those establishments engaged in the wholesale distribution of nondurable goods. This classification includes paper, drug supplies, dry goods, farm products, chemicals, petroleum, and alcoholic beverages.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	59,880	NA	100.0
Managers and Officers	5,460	NA	9.1
Financial Managers	90	21.1	0.2
Personnel and Labor Relations Managers	50	16.8	0.1
Purchasing Managers	560	11.8	0.9
Marketing, Advertising, and Public Relations Managers	140	18.2	0.2
Administrative Service Managers	40	15.1	0.1
Communications, Transportations, and Utilities Managers	200	15.8	0.3
General Managers and Top Executives	4,240	4.9	7.1
Other Managers and Administrators	140	NA	0.2
Professional and Technical Workers	2,280	NA	3.8
Accountants and Auditors	360	15.5	0.6
Wholesale and Retail Buyers - except Farm Products	430	15.5	0.7
Purchasing Agents and Buyers, Farm Products	270	24.3	0.4
Other Management Support Workers	80	NA	0.1
Other Engineers	130	NA	0.2
Computer Programmers	140	13.7	0.2
Other Health Professionals and Technical Workers	80	NA	0.1
Merchandise Displayers and Window Trimmers	150	32.6	0.2
Other Professional and Technical Workers	640	NA	1.1
Sales Workers	15,770	NA	26.3
Sales Supervisors	2,100	9.4	3.5
Sales Representatives, Scientific - except Retail	2,500	14.7	4.2
Sales Representatives - except Scientific or Retail	7,390	6.6	12.3
Salespersons, Retail	530	30.3	0.9
Stock Clerks, Sales Floor	1,520	13.7	2.5
Cashiers	1,480	12.5	2.5
Other Sales and Related Workers	250	NA	0.4
Clerical Workers	12,950	NA	21.6
Clerical and Administrative Supervisors	820	9.3	1.4

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Credit Checkers	40	25.0	0.1
Adjustment Clerks	160	17.8	0.3
Bill and Account Collectors	110	20.6	0.2
Secretaries	1,650	7.8	2.8
Receptionists and Information Clerks	320	18.5	0.5
Typists, Word Processing Equipment	50	20.7	0.1
Personnel Clerks	30	19.4	0.1
Order Clerks	980	13.4	1.6
Bookkeeping, Accounting, and Auditing Clerks	1,350	7.2	2.2
Payroll and Timekeeping Clerks	40	12.5	0.1
Billing, Cost, and Rate Clerks	250	18.9	0.4
General Office Clerks	1,260	8.8	2.1
Billing, Posting, and Calculating Machine Operators	190	21.1	0.3
Computer Operators	310	13.0	0.5
Data Entry Keyers	380	12.7	0.6
Switchboard Operators	40	24.8	0.1
Production, Planning, and Expediting Clerks	30	18.2	0.1
Weighers, Measurers, Checkers, and Samplers-Record Keeping	40	25.1	0.1
Stock Clerks, Stockroom or Warehouse	1,350	16.6	2.2
Order Fillers, Wholesale and Retail	1,700	11.4	2.8
Traffic, Shipping, and Receiving Clerks	1,480	10.9	2.5
Other Clerical and Administrative Workers	370	NA	0.6
Service Workers	770	NA	1.3
Guards and Watchguards	40	26.8	0.1
Food Preparation Workers	70	33.7	0.1
Janitors and Cleaners	270	12.7	0.4
Other Service Workers	390	NA	0.6
Agricultural, Forestry, and Fishery Workers	1,020	NA	1.7
Nursery Workers	410	33.2	0.7
Graders and Sorters, Agricultural Products	400	28.7	0.7
Other Agricultural, Forestry, and Fishery Workers	210	NA	0.3
Production and Maintenance Workers	21,630	NA	36.1
Mechanic and Repairer Supervisors	160	25.8	0.3
Transportation and Material Moving Supervisors	100	20.1	0.2
Helpers, Laborers, and Material Movers Supervisors - Hand	160	17.3	0.3
Other Supervisors	170	NA	0.3
Other Inspectors and Testers	140	NA	0.2
Maintenance Repairers, General Utility	760	13.7	1.3
Bus, Truck, and Diesel Mechanics	370	14.3	0.6
Other Mechanics, Installers, and Repairers	440	NA	0.7
Other Precision Workers	190	NA	0.3

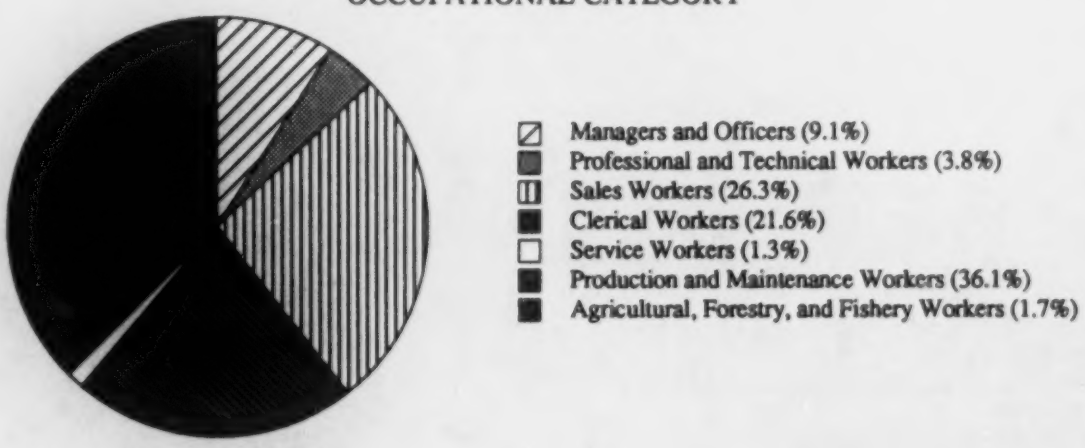
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Packing and Filling Machine Operators and Tenders	500	26.4	0.8
Other Machine Operators	520	NA	0.9
Other Hand Workers	730	NA	1.2
Truck Drivers, Heavy - inc. Tractor-Trailer	4,150	7.6	6.9
Truck Drivers, Light - inc. Delivery and Route Workers	2,270	10.6	3.8
Driver/Sales Workers	3,910	9.8	6.5
Other Transportation Workers	170	NA	0.3
Industrial Truck and Tractor Operators	920	16.8	1.5
Other Material Moving Equipment Operators	90	NA	0.2
Material Movers, Hand	3,020	11.0	5.0
Hand Packers and Packagers	1,690	18.5	2.8
Vehicle Washers and Equipment Cleaners	40	34.7	0.1
Other Helpers, Laborers, and Material Movers - Hand	1,130	NA	1.9

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 8
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Sales Representatives - except Scientific or Retail	7,390	12.3
General Managers and Top Executives	4,240	7.1
Truck Drivers, Heavy - inc. Tractor-Trailer	4,150	6.9
Driver/Sales Workers	3,910	6.5
Material Movers, Hand	3,020	5.0

FIGURE 8
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (9.1%)
Professional and Technical Workers (3.8%)
Sales Workers (26.3%)
Clerical Workers (21.6%)
Service Workers (1.3%)
Production and Maintenance Workers (36.1%)
Agricultural, Forestry, and Fishery Workers (1.7%)

SIC 52

BUILDING MATERIALS, HARDWARE, GARDEN SUPPLY, AND MOBILE HOME DEALERS

June 1988

This major group includes establishments primarily engaged in selling lumber and other building materials, paint, glass, wallpaper, hardware, garden supplies, and mobile homes. Establishments whose sales are mostly to contractors are considered "retail" and are included in this group.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	26,300	NA	100.0
Managers and Officers	3,150	NA	12.0
Financial Managers	40	17.1	0.2
Purchasing Managers	460	18.1	1.8
Marketing, Advertising, and Public Relations Managers	90	13.0	0.3
General Managers and Top Executives	2,340	6.1	8.9
Other Managers and Administrators	220	NA	0.8
Professional and Technical Workers	1,200	NA	4.5
Accountants and Auditors	200	11.6	0.8
Other Financial Specialists	40	NA	0.1
Wholesale and Retail Buyers - except Farm Products	370	13.7	1.4
Cost Estimators	200	17.1	0.8
Other Management Support Workers	60	NA	0.2
Designers	50	25.8	0.2
Interior Designers	120	22.2	0.4
Other Professional and Technical Workers	160	NA	0.6
Sales Workers	9,140	NA	34.8
Sales Supervisors	1,210	13.6	4.6
Sales Representatives - except Scientific or Retail	650	18.9	2.5
Salespersons, Retail	5,540	4.7	21.1
Counter and Rental Clerks	130	15.7	0.5
Stock Clerks, Sales Floor	760	11.2	2.9
Cashiers	850	15.8	3.2
Clerical Workers	4,880	NA	18.6
Clerical and Administrative Supervisors	40	22.1	0.1
Secretaries	690	11.9	2.6
Bookkeeping, Accounting, and Auditing Clerks	990	10.7	3.7
Payroll and Timekeeping Clerks	30	25.8	0.1
Billing, Cost, and Rate Clerks	160	18.2	0.6
General Office Clerks	640	14.3	2.4
Data Entry Keyers	30	34.0	0.1
Dispatchers - except Police, Fire, and Ambulance	60	31.1	0.2
Stock Clerks, Stockroom or Warehouse	1,110	16.2	4.2
Traffic, Shipping, and Receiving Clerks	790	17.5	3.0

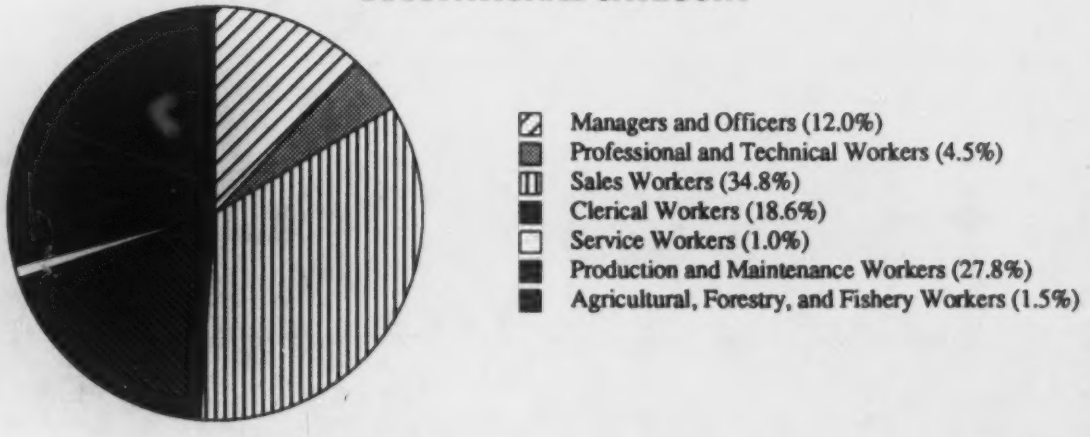
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Other Clerical and Administrative Workers	340	NA	1.3
Service Workers	260	NA	1.0
Janitors and Cleaners	220	25.8	0.8
Other Service Workers	40	NA	0.1
Agricultural, Forestry, and Fishery Workers	390	NA	1.5
Nursery Workers	270	14.6	1.0
Gardener and Groundskeepers - except Farms	120	24.9	0.5
Production and Maintenance Workers	7,310	NA	27.8
Mechanic and Repairer Supervisors	180	28.4	0.7
Other Supervisors	50	NA	0.2
Maintenance Repairers, General Utility	220	20.0	0.8
Automotive Body and Related Repairers	30	24.1	0.1
Small Engine Specialists	310	13.6	1.2
Installers and Repairers, Mobile Homes and Trailers	540	14.4	2.0
Other Mechanics, Installers, and Repairers	220	NA	0.8
Painters and Paperhangers	80	33.3	0.3
Glaziers	240	11.6	0.9
Other Construction Trades Workers	370	NA	1.4
Other Precision Workers	460	NA	1.8
Other Machine Operators	300	NA	1.2
Truck Drivers, Heavy - inc. Tractor-Trailer	900	24.2	3.4
Truck Drivers, Light - inc. Delivery and Route Workers	1,870	12.4	7.1
Industrial Truck and Tractor Operators	400	33.8	1.5
Other Helpers, Laborers, and Material Movers - Hand	1,140	NA	4.3

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 9
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Salespersons, Retail	5,540	21.1
General Managers and Top Executives	2,340	8.9
Truck Drivers, Light - inc. Delivery and Route Workers	1,870	7.1
Sales Supervisors	1,210	4.6
Stock Clerks, Stockroom or Warehouse	1,110	4.2

FIGURE 9
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (12.0%)
Professional and Technical Workers (4.5%)
Sales Workers (34.8%)
Clerical Workers (18.6%)
Service Workers (1.0%)
Production and Maintenance Workers (27.8%)
Agricultural, Forestry, and Fishery Workers (1.5%)

SIC 54

FOOD STORES

June 1988

This major group includes retail stores primarily engaged in selling food for home preparation and consumption. Establishments primarily engaged in selling prepared foods and drinks for consumption on the premises are classified in Major Group 58, and stores primarily engaged in selling packaged beers and liquors are in Industry 5921.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	86,650	NA	100.0
Managers and Officers	4,900	NA	5.7
Purchasing Managers	1,180	28.1	1.4
General Managers and Top Executives	3,720	11.0	4.3
Professional and Technical Workers	850	NA	1.0
Purchasing Agents and Buyers, Farm Products	110	27.1	0.1
Other Professional and Technical Workers	740	NA	0.9
Sales Workers	47,510	NA	54.8
Sales Supervisors	4,280	8.9	4.9
Salespersons, Retail	4,800	30.1	5.5
Stock Clerks, Sales Floor	13,320	8.0	15.4
Cashiers	25,060	6.5	28.9
Other Sales and Related Workers	50	NA	0.1
Clerical Workers	5,020	NA	5.8
Secretaries	640	26.2	0.7
Bookkeeping, Accounting, and Auditing Clerks	1,620	18.3	1.9
General Office Clerks	520	23.3	0.6
Stock Clerks, Stockroom or Warehouse	1,520	33.8	1.8
Traffic, Shipping, and Receiving Clerks	310	21.9	0.4
Other Clerical and Administrative Workers	410	NA	0.5
Service Workers	11,750	NA	13.6
Counter Attendants - Lunchroom, Coffee Shop or Cafeteria	1,060	20.9	1.2
Bakers, Bread and Pastry	1,110	12.2	1.3
Butchers and Meat Cutters	4,320	10.6	5.0
Food Preparation Workers	2,000	20.2	2.3
Combination Food Preparation and Service Workers	1,410	22.7	1.6
Other Food Service Workers	1,010	NA	1.2
Other Service Workers	840	NA	1.0
Production and Maintenance Workers	16,620	NA	19.2
Maintenance Repairers, General Utility	240	29.0	0.3
Other Precision Workers	160	NA	0.2

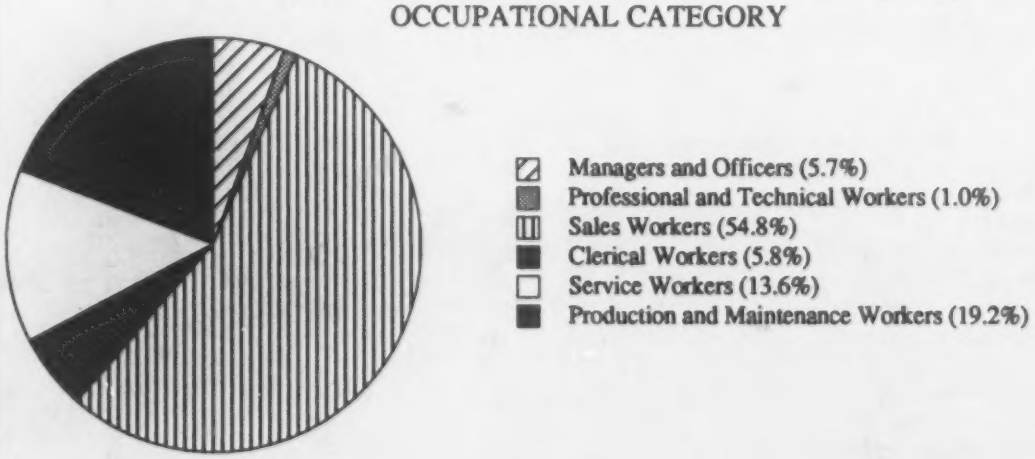
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Packing and Filling Machine Operators and Tenders	1,050	15.7	1.2
Truck Drivers, Heavy - inc. Tractor-Trailer	460	30.5	0.5
Driver/Sales Workers	190	26.8	0.2
Material Movers, Hand	11,070	12.2	12.8
Hand Packers and Packagers	2,300	29.9	2.6
Other Helpers, Laborers, and Material Movers - Hand	1,150	NA	1.3

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 10
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Cashiers	25,060	28.9
Stock Clerks, Sales Floor	13,320	15.4
Material Movers, Hand	11,070	12.8
Salespersons, Retail	4,800	5.5
Butchers and Meat Cutters	4,320	5.0

FIGURE 10
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 55

AUTOMOTIVE DEALERS AND GASOLINE SERVICE STATIONS

June 1988

This major group includes establishments selling new and/or used automobiles and recreation equipment. Gasoline stations, motorcycle dealers, and boat and utility trailer dealers are also included.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	55,660	NA	100.0
Managers and Officers	5,190	NA	9.3
Marketing, Advertising, and Public Relations Managers	1,250	19.2	2.2
General Managers and Top Executives	3,940	6.3	7.1
Professional and Technical Workers	450	NA	0.8
Accountants and Auditors	400	32.0	0.7
Other Professional and Technical Workers	50	NA	0.1
Sales Workers	20,840	NA	37.4
Sales Supervisors	2,900	14.9	5.2
Salespersons, Retail	9,050	4.9	16.3
Salespersons, Parts	4,120	9.4	7.4
Cashiers	4,620	7.8	8.3
Other Sales and Related Workers	150	NA	0.3
Clerical Workers	7,140	NA	12.8
Clerical and Administrative Supervisors	860	25.8	1.5
Secretaries	1,280	17.6	2.3
Bookkeeping, Accounting, and Auditing Clerks	2,550	7.4	4.6
Billing, Cost, and Rate Clerks	250	33.9	0.4
General Office Clerks	1,120	22.7	2.0
Stock Clerks, Stockroom or Warehouse	640	16.2	1.2
Other Clerical and Administrative Workers	440	NA	0.8
Service Workers	1,070	NA	1.9
Waiters and Waitresses	190	31.0	0.3
Food Preparation Workers	140	31.0	0.2
Janitors and Cleaners	530	26.2	1.0
Other Service Workers	210	NA	0.4
Production and Maintenance Workers	20,980	NA	37.5
Mechanic and Repairer Supervisors	1,380	11.1	2.5
Maintenance Repairers, General Utility	330	22.4	0.6
Automobile Mechanics	8,420	6.1	15.1
Auto Body and Related Repairers	1,060	17.4	1.9
Motorcycle Repairers	190	6.2	0.3
Aircraft Mechanics	40	5.7	0.1
Small Engines Specialists	320	14.4	0.6
Tire Repairers and Changers	2,090	12.9	3.8
Other Mechanics and Installers	410	NA	0.7

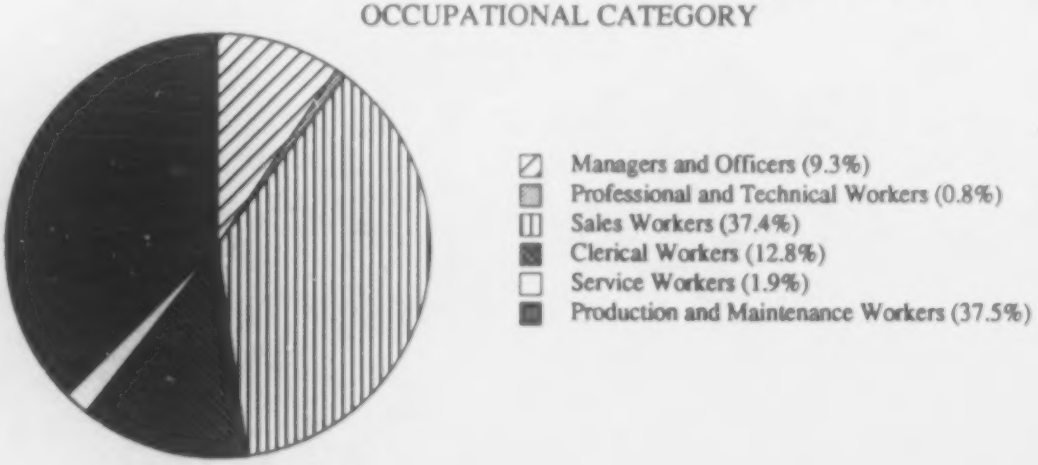
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Other Machine Operators and Tenders	260	NA	0.5
Truck Drivers, Heavy - inc. Tractor-Trailer	470	17.7	0.8
Truck Drivers, Light - inc. Delivery and Route Workers	670	17.9	1.2
Service Station Attendants	2,550	10.2	4.6
Other Transportation Workers	80	NA	0.1
Mechanic and Repairer Helpers	760	18.4	1.4
Vehicle Washers and Equipment Cleaners	1,720	13.4	3.1
Other Helpers, Laborers, and Material Movers - Hand	230	NA	0.4

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 11
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Salespersons, Retail	9,050	16.3
Automobile Mechanics	8,420	15.1
Cashiers	4,620	8.3
Salespersons, Parts	4,120	7.4
General Managers and Top Executives	3,940	7.1

FIGURE 11
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 56

APPAREL AND ACCESSORY STORES

June 1988

This major group includes retail establishments primarily engaged in selling new clothing, shoes, hats, and other articles for personal wear. Furriers and custom tailors that have inventory on hand are included in this group.

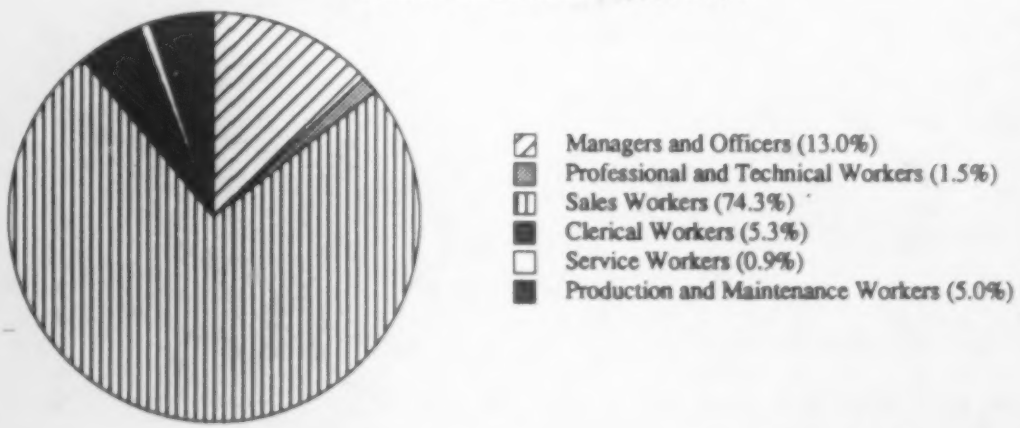
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	27,910	NA	100.0
Managers and Officers	3,630	NA	13.0
Purchasing Managers	200	22.1	0.7
General Managers and Top Executives	3,380	4.7	12.1
Other Managers and Administrators	50	NA	0.2
Professional and Technical Workers	400	NA	1.5
Wholesale and Retail Buyers, except Farm Products	300	18.6	1.1
Other Professional and Technical Workers	100	NA	0.4
Sales Workers	20,740	NA	74.3
Sales Supervisors	2,220	7.2	7.9
Salespersons, Retail	16,150	2.4	57.9
Stock Clerks, Sales Floor	1,230	12.2	4.4
Cashiers	1,120	16.1	4.0
Other Sales and Related Workers	20	NA	0.1
Clerical Workers	1,480	NA	5.3
Clerical and Administrative Supervisors	90	29.2	0.3
Secretaries	140	25.8	0.5
Bookkeeping, Accounting, and Auditing Clerks	460	11.8	1.6
General Office Clerks	160	29.3	0.6
Data Entry Keyers	40	30.9	0.2
Stock Clerks, Stockroom or Warehouse	130	32.2	0.5
Order Fillers, Wholesale and Retail	40	31.5	0.1
Traffic, Shipping, and Receiving Clerks	180	24.0	0.6
Other Clerical and Administrative Workers	240	NA	0.9
Service Workers	270	NA	0.9
Janitors and Cleaners	170	20.3	0.6
Other Service Workers	100	NA	0.3
Production and Maintenance Workers	1,390	NA	5.0
Other Mechanics, Installers, and Repairers	20	NA	0.1
Custom Tailors and Sewers	840	13.5	3.0
Other Machine Operators and Tenders	230	NA	0.8
Other Hand Workers	60	NA	0.2
Other Helpers, Laborers, Material Movers - Hand	240	NA	0.9

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 12
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Salespersons, Retail	16,150	57.9
General Managers and Top Executives	3,380	12.1
Sales Supervisors	2,220	7.9
Stock Clerks, Sales Floor	1,230	4.4
Cashiers	1,120	4.0

FIGURE 12
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 57

HOME FURNITURE, FURNISHINGS, AND EQUIPMENT STORES

June 1988

Establishments in this group are primarily retail stores selling home furnishings such as furniture, draperies,and electrical and gas appliances. Antiques and used furniture dealers are not included in this group.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	24,530	NA	100.0
Managers and Officers	3,090	NA	12.6
Purchasing Officers	290	26.5	1.2
General Managers and Top Executives	2,740	5.9	11.2
Other Managers and Administrators	60	NA	0.2
Professional and Technical Workers	1,310	NA	5.3
Other Financial Specialists	130	NA	0.5
Other Management Support Workers	180	NA	0.7
Interior Designers	540	29.1	2.2
Other Professional and Technical Workers	460	NA	1.9
Sales Workers	10,340	NA	42.1
Sales Supervisors	900	15.5	3.7
Sales Representatives - except Scientific or Retail	240	34.0	1.0
Salespersons, Retail	7,290	6.7	29.7
Stock Clerks, Sales Floor	890	22.8	3.6
Cashiers	860	25.3	3.5
Other Sales and Related Workers	160	NA	0.6
Clerical Workers	3,880	NA	15.8
Clerical and Administrative Supervisors	290	27.4	1.2
Bill and Account Collectors	250	26.4	1.0
Secretaries	320	21.5	1.3
Receptionists and Information Clerks	180	28.3	0.7
Bookkeeping, Accounting, and Auditing Clerks	1,070	11.6	4.4
General Office Clerks	830	14.9	3.4
Stock Clerks, Stockroom or Warehouse	250	28.5	1.0
Traffic, Shipping, and Receiving Clerks	390	21.6	1.6
Other Clerical and Administrative Workers	300	NA	1.2
Service Workers	260	NA	1.0
Janitors and Cleaners	180	24.8	0.7
Other Service Workers	80	NA	0.3
Production and Maintenance Workers	5,630	NA	23.0
Home Entertainment Equipment Repairers	470	30.6	1.9
Electric Appliance and Tool Repairers	280	21.3	1.1

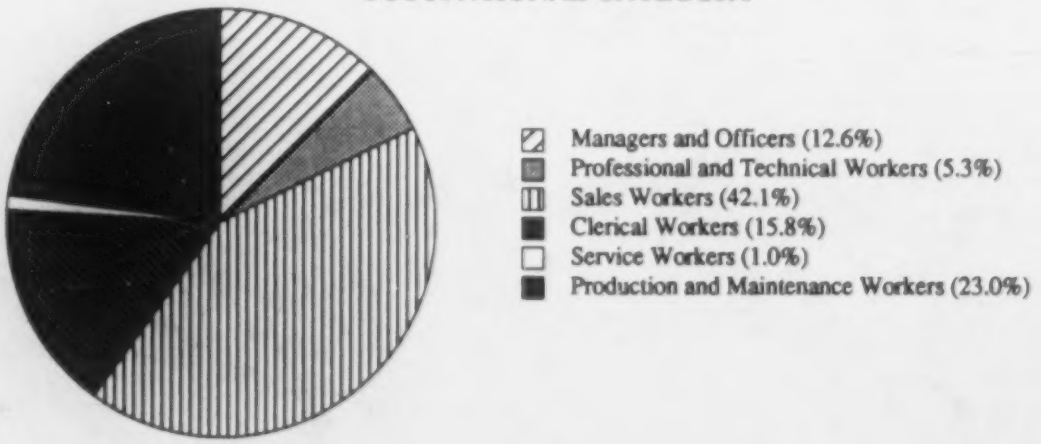
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Other Mechanics, Installers, and Repairers	810	NA	3.3
Other Construction Trades Workers	440	NA	1.8
Other Precision Workers	900	NA	3.7
Truck Drivers, Light - inc. Delivery and Route Workers	1,250	15.4	5.1
Material Movers, Hand	1,000	17.8	4.1
Other Helpers, Laborers, Material Movers - Hand	480	NA	2.0

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 13
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Salespersons, Retail	7,290	29.7
General Managers and Top Executives	2,740	11.2
Truck Drivers, Light - inc. Delivery and Route Workers	1,250	5.1
Bookkeeping, Accounting, and Auditing Clerks	1,070	4.4
Material Movers, Hand	1,000	4.1

FIGURE 13
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



SIC 58

EATING AND DRINKING PLACES

June 1988

The establishments in this major grouping are primarily engaged in the retail selling of food and drinks for consumption on the premises. Establishments that are operated as a subordinate service facility of another industry are not included.

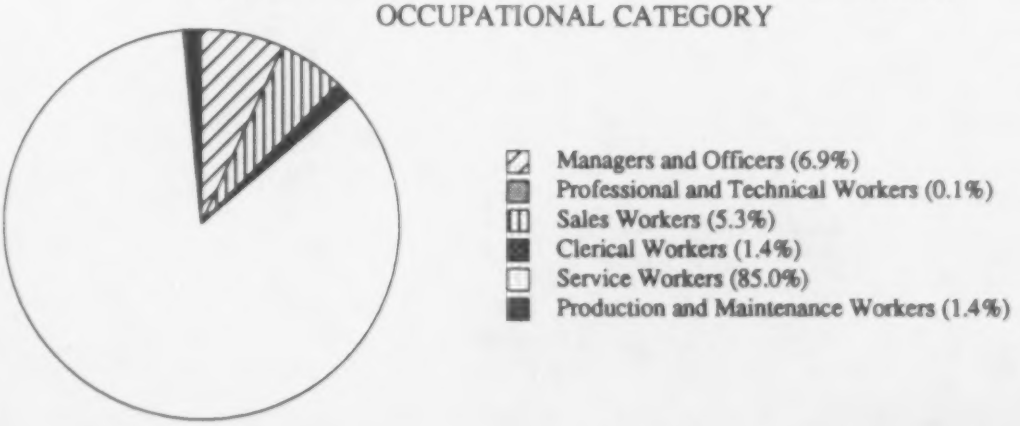
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	170,860	NA	100.0
Managers and Officers	11,850	NA	6.9
Food Service and Lodging Managers	8,530	12.4	5.0
General Managers and Top Executives	3,260	18.9	1.9
Other Managers and Administrators	60	NA	0.1
Professional and Technical Workers	180	NA	0.1
Sales Workers	8,870	NA	5.3
Cashiers	8,830	20.2	5.2
Other Sales and Related Workers	40	NA	0.1
Clerical Workers	2,310	NA	1.4
Clerical and Administrative Supervisors	830	32.8	0.5
Secretaries	360	28.2	0.2
Bookkeeping, Accounting, and Auditing Clerks	650	33.5	0.4
Other Clerical and Administrative Workers	470	NA	0.3
Service Workers	145,230	NA	85.0
Service Supervisors	6,200	12.2	3.6
Hosts and Hostesses	3,130	19.8	1.8
Bartenders	1,930	33.6	1.1
Waiters and Waitresses	33,100	11.5	19.4
Dining Room and Cafeteria Attendants	7,500	18.2	4.4
Counter Attendants - Lunchroom, Coffee Shop, or Cafeteria	4,600	28.7	2.7
Bakers, Bread and Pastry	820	28.2	0.5
Cooks, Restaurant	10,330	15.3	6.0
Cooks, Specialty Fast Food	25,170	13.3	14.7
Food Preparation Workers	14,960	13.7	8.8
Combination Food Preparation and Service Workers	34,230	13.6	20.0
Janitors and Cleaners	570	32.1	0.3
Other Service Workers	2,690	NA	1.6
Production and Maintenance Workers	2,410	NA	1.4
Maintenance Repairers, General Utility	630	22.7	0.4
Other Helpers, Laborers, Material Movers - Hand	1,780	NA	1.0

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 14
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Combination Food Preparation and Service Workers	34,230	20.0
Waiters and Waitresses	33,100	19.4
Cooks, Specialty Fast Food	25,170	14.7
Food Preparation Workers	14,960	8.8
Cooks, Restaurant	10,330	6.0

FIGURE 14
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



*NOTE: (0.1% is too small to appear on graph).

SIC 59 MISCELLANEOUS RETAIL

June 1988

This major group includes establishments not previously classified. Drug and liquor stores, florists, cigar stores, and fuel and ice dealers are included within this classification.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	62,700	NA	100.0
Managers and Officers	6,620	NA	10.6
Financial Managers	40	17.3	0.1
Purchasing Managers	600	12.6	1.0
Marketing, Advertising, and Public Relations Managers	60	26.2	0.1
General Managers and Top Executives	5,770	3.1	9.2
Other Managers and Administrators	150	NA	0.2
Professional and Technical Workers	5,520	NA	8.8
Accountants and Auditors	280	20.1	0.4
Wholesale and Retail Buyers - except Farm Products	430	15.1	0.7
Personnel and Labor Relations Specialists	40	17.8	0.1
Other Management Support Workers	70	NA	0.1
Opticians, Dispensing and Measuring	420	30.0	0.7
Pharmacists	2,620	7.3	4.2
Designers	1,370	12.4	2.2
Other Professional and Technical Workers	290	NA	0.5
Sales Workers	29,470	NA	47.0
Sales Supervisors	2,680	6.4	4.3
Salespersons, Retail	17,060	3.7	27.2
Stock Clerks, Sales Floor	2,700	9.0	4.3
Cashiers	5,980	8.4	9.5
News Vendors and Related Workers	310	32.9	0.5
Other Sales and Related Workers	740	NA	1.2
Clerical Workers	7,470	NA	11.9
Clerical and Administrative Supervisors	140	18.9	0.2
Adjustment Clerks	60	19.6	0.1
Secretaries	800	11.0	1.3
Order Clerks	550	14.5	0.9
Bookkeeping, Accounting, and Auditing Clerks	1,810	10.6	2.9
Payroll and Timekeeping Clerks	40	20.4	0.1
Billing, Cost, and Rate Clerks	170	16.3	0.3
General Office Clerks	1,040	9.2	1.6
Data Entry Keyers	160	20.1	0.3
Production, Planning, and Expediting Clerks	60	29.9	0.1
Stock Clerks, Stockroom or Warehouse	520	10.6	0.8

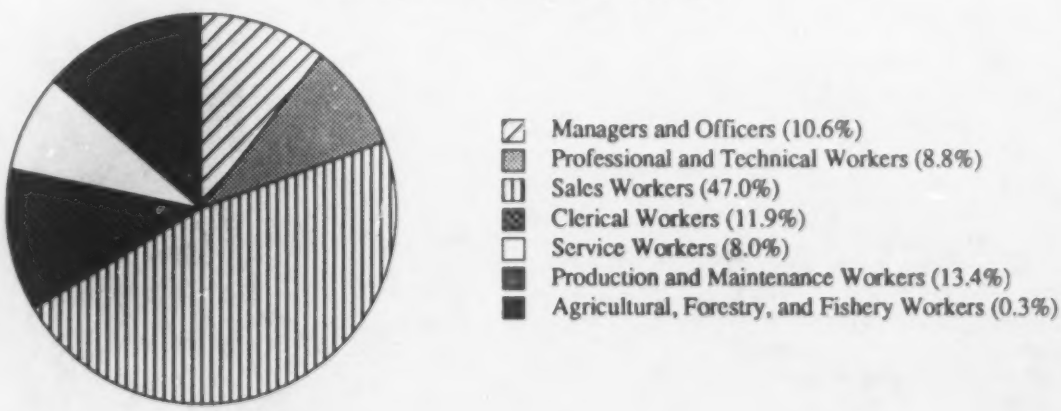
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Order Fillers, Wholesale and Retail	940	28.3	1.5
Traffic, Shipping, and Receiving Clerks	790	19.3	1.3
Other Material Recording and Related Workers	150	NA	0.2
Other Clerical Workers	240	NA	0.4
Service Workers	5,030	NA	8.0
Service Supervisors	110	23.7	0.2
Guards & Watch Guards	70	34.0	0.1
Counter Attendants - Lunchroom, Coffee Shop, or Cafeteria	860	21.1	1.4
Cooks, Short Order	340	31.6	0.5
Food Preparation Workers	450	24.8	0.7
Combination Food Preparation Workers and Service Workers	720	28.1	1.1
Other Food Service Workers	460	NA	0.7
Pharmacy Assistants	1,480	12.3	2.4
Janitors and Cleaners	360	16.8	0.6
Other Service Workers	180	NA	0.3
Agricultural, Forestry, and Fishery Workers	180	NA	0.3
Production and Maintenance Workers	8,400	NA	13.4
Other Supervisors	50	NA	0.1
Maintenance Repairers, General Utility	310	17.7	0.5
Other Inspectors, Testers, and Related Workers	110	NA	0.2
Heating, Air Conditioning, and Refrigeration Mechanics	310	18.1	0.5
Watchmakers	80	30.1	0.1
Gas Appliance Repairers	190	20.7	0.3
Coin and Vending Machine Servicers	580	24.5	0.9
Other Mechanics, Installers, and Repairers	500	NA	0.8
Jewelers and Silversmiths	420	18.9	0.7
Other Precision Workers	90	NA	0.1
Other Machine Operators and Tenders	110	NA	0.2
Assemblers and Fabricators	290	33.8	0.5
Other Hand Workers	60	NA	0.1
Truck Drivers, Heavy - inc. Tractor-Trailer	1,000	11.5	1.6
Truck Drivers, Light - inc. Delivery and Route Workers	1,680	9.9	2.7
Driver/Sales Workers	770	19.3	1.2
Service Station Attendants	80	32.5	0.1
Other Material Moving Equipment Operators	150	NA	0.2
Material Movers, Hand	640	19.0	1.0
Other Helpers, Laborers, Material Movers - Hand	980	NA	1.6

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 15
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Salespersons, Retail	17,060	27.2
Cashiers	5,980	9.5
General Managers and Top Executives	5,770	9.2
Stock Clerks, Sales Floor	2,700	4.3
Sales Supervisors	2,680	4.3

FIGURE 15
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (10.6%)
Professional and Technical Workers (8.8%)
Sales Workers (47.0%)
Clerical Workers (11.9%)
Service Workers (8.0%)
Production and Maintenance Workers (13.4%)
Agricultural, Forestry, and Fishery Workers (0.3%)

SIC 82 EDUCATIONAL SERVICES

June 1988

This major group includes establishments furnishing formal academic or technical courses, correspondence schools, commercial and trade schools, and libraries. Schools for the instruction of beauty parlor operations are classified in Group 723, and barber colleges in Group 724. Establishments primarily engaged in providing job training are classified in Industry 8331.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	238,300	NA	100.0
Managers and Officers	11,990	NA	5.0
Financial Managers	200	10.8	0.1
Marketing, Advertising, and Public Relations Managers	200	11.5	0.1
Engineering, Mathematical, and Natural Science Managers	140	23.3	0.1
Education Administrators	7,850	2.8	3.3
Food Service and Lodging Managers	520	5.2	0.2
General Managers and Top Executives	1,550	4.6	0.6
Other Managers and Administrators	1,530	NA	0.6
Professional and Technical Workers	141,870	NA	59.5
Accountants and Auditors	470	6.0	0.2
Other Financial Specialists	180	NA	0.1
Purchasing Agents - except Wholesale, Retail, and Farm Products	130	8.9	0.1
Personnel and Labor Relations Specialists	180	13.4	0.1
Other Management Support Workers	660	NA	0.3
Other Engineering Technicians and Technologists	130	NA	0.1
Life Scientists	680	32.4	0.3
Science Technicians and Technologists	1,090	28.9	0.4
Systems Analysts, EDP	260	12.0	0.1
Computer Programmers	360	8.6	0.2
Computer Programmer Aides	170	12.2	0.1
Psychologists	510	6.6	0.2
Other Social Scientists	260	NA	0.1
Social Workers, except Medical	410	8.9	0.2
Nursing Instructors	1,020	13.2	0.4
Graduate Assistants, Teaching	3,640	26.4	1.5
Teachers, Life Sciences	2,900	21.0	1.2
Teachers, Chemistry	430	6.5	0.2
Teachers, Physics	320	7.2	0.1
Other Physical Science Teachers	520	NA	0.2
Teachers, Social Science	2,200	7.1	0.9
Teachers, Health Specialties	590	16.4	0.2
Teachers, English and Foreign Languages	2,160	5.5	0.9
Teachers, Art and Drama	1,450	13.3	0.6
Teachers, Engineering	980	15.4	0.4
Teachers, Mathematics	1,110	11.6	0.5

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Teachers, Computer Science	750	9.3	0.3
Other Teachers, College	6,470	NA	2.7
Teachers, Preschool and Kindergarten	5,220	2.4	2.2
Teachers, Elementary	35,590	0.6	14.9
Teachers, Secondary	24,680	0.8	10.4
Teachers, Special Education	5,590	2.0	2.3
Teachers and Instructors, Vocational Education	7,760	12.1	3.2
Instructors, Nonvocational	7,960	16.1	3.3
Instructors and Coaches, Sports	1,470	7.4	0.6
Other Teachers and Related Workers	2,740	NA	1.1
Librarians, Professional	2,850	1.7	1.2
Teachers Assistants, Library	1,650	21.9	0.7
Audio-Visual Specialists	510	3.7	0.2
Vocational and Educational Counselors	2,790	3.5	1.2
Instructional Coordinators	1,080	4.9	0.4
Teacher Aides, Paraprofessional	8,520	3.8	3.6
Speech Pathologists and Audiologists	650	5.0	0.3
Registered Nurses	610	24.1	0.2
Licensed Practical Nurses	190	28.4	0.1
Other Health Professionals	590	NA	0.2
Public Relations Specialists	210	13.6	0.1
Other Professionals and Technical Workers	1,180	NA	0.5
Sales Workers	830	NA	0.4
Cashiers	640	7.7	0.3
Other Sales and Related Workers	190	NA	0.1
Clerical Workers	33,370	NA	14.0
Clerical and Administrative Supervisors	1,160	14.8	0.5
Library Assistant and Bookmobile Drivers	820	9.0	0.3
Teacher Aides and Educational Assistants	11,690	2.8	4.9
Secretaries	9,730	3.5	4.1
Stenographers	350	20.9	0.1
Receptionists and Information Clerks	570	14.0	0.2
Typists	730	16.7	0.3
Typists, Word Processing Equipment	690	11.2	0.3
File Clerks	120	34.6	0.1
Bookkeeping, Accounting, and Auditing Clerks	2,250	3.2	0.9
Payroll Timekeeping Clerks	160	8.8	0.1
General Office Clerks	1,910	6.5	0.8
Duplicating Machine Operators	190	10.3	0.1
Computer Operators	280	8.1	0.1
Data Entry Keyers	300	14.5	0.1
Other Office Machine Operators	230	NA	0.1
Switchboard Operators	220	11.9	0.1
Mail Clerks - except Mail Machine Operators and Postal Service	190	8.9	0.1
Stock Clerks, Stockroom or Warehouse	250	13.9	0.1
Other Material Recording and Related Workers	80	NA	0.1
Other Clerical Workers	1,450	NA	0.6

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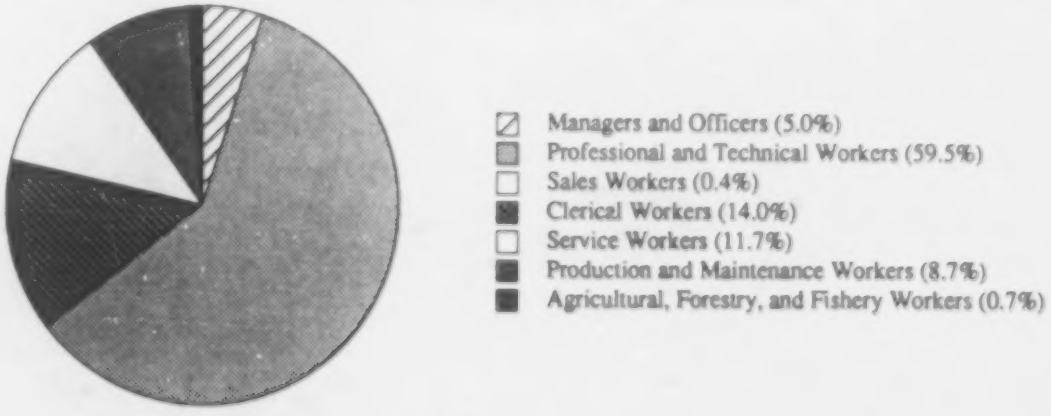
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Service Workers	27,820	NA	11.7
Service Supervisors	1,740	3.3	0.7
Guards and Watch Guards	780	9.1	0.3
Other Protective Service Workers	120	NA	0.1
Dining Room and Cafeteria Attendants	540	17.8	0.2
Counter Attendants - Lunchroom, Coffee Shop, or Cafeteria	1,680	5.8	0.7
Cooks, Institutional or Cafeteria	6,380	2.3	2.7
Food Preparation Workers	4,700	3.9	2.0
Other Food Service Workers	170	NA	0.1
Maids and Housekeeping Cleaners	900	14.5	0.4
Janitors and Cleaners - except Maids and Housekeeping Cleaners	9,860	2.8	4.1
Other Cleaning and Building Service Workers	100	NA	0.1
Child Care Workers	540	22.4	0.2
Other Service Workers	310	NA	0.1
Agricultural, Forestry, and Fishery Workers	1,710	NA	0.7
Gardeners and Groundskeepers - except Farm	920	9.1	0.4
Other Agricultural, Forestry, and Fishery Workers	790	NA	0.3
Production and Maintenance Workers	20,700	NA	8.7
Mechanic and Repairer Supervisors	160	14.4	0.1
Other Supervisors	150	NA	0.1
Maintenance Repairers, General Utility	3,290	3.4	1.4
Bus, Truck, and Diesel Mechanics	1,050	1.8	0.4
Heating, Air Conditioning, and Refrigeration Mechanics	250	10.9	0.1
Other Mechanics and Installers	160	NA	0.1
Carpenters	280	11.0	0.1
Electricians	260	7.5	0.1
Painters and Paperhangers	180	10.3	0.1
Plumbers and Pipefitters	180	10.5	0.1
Other Construction Trades Workers	240	NA	0.1
Bus Drivers, School	13,730	1.6	5.8
Helpers, Laborers and Repairers	530	11.8	0.2
Other Helpers, Laborers, Material Movers - Hand	240	NA	0.1

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 16
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Teachers, Elementary	35,590	14.9
Teachers, Secondary	24,680	10.4
Bus Drivers, School	13,730	5.8
Teacher Aides and Educational Assistants	11,690	4.9
Janitors and Cleaners - except Maids and Housekeeping Cleaners	9,860	4.1

FIGURE 16
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (5.0%)
Professional and Technical Workers (59.5%)
Sales Workers (0.4%)
Clerical Workers (14.0%)
Service Workers (11.7%)
Production and Maintenance Workers (8.7%)
Agricultural, Forestry, and Fishery Workers (0.7%)

LOCAL GOVERNMENT

May 1988

This major group includes full-time temporary, full-time permanent, part-time temporary, and part-time permanent employees on the local government payrolls as of May, 1988. Excluded are persons serving without compensation such as unpaid officials and members of boards and commissions as well as persons on extended leave without pay. In addition, it excludes all persons employed in educational services and local government-operated hospitals.

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Total Employment	92,120	NA	100.0
Managers and Officers	5,420	NA	5.9
Financial Managers	230	14.5	0.2
Personnel and Labor Relations Managers	120	9.4	0.1
Purchasing Managers	60	17.9	0.1
Engineering, Mathematical, and Natural Science Managers	90	10.2	0.1
Construction Managers	170	19.4	0.2
Communications, Transportation, and Utilities Managers	350	18.1	0.4
General Managers and Top Executives	1,380	14.2	1.5
Other Managers and Administrators	3,020	NA	3.3
Professional and Technical Workers	18,680	NA	20.3
Accountants and Auditors	360	14.0	0.4
Budget Analysts	90	11.5	0.1
Other Financial Specialists	170	NA	0.2
Purchasing Agents and Buyers	120	25.1	0.1
Personnel and Labor Relations Specialists	180	4.4	0.2
Construction and Building Inspectors	1,020	6.0	1.1
Compliance Officers and Enforcement Inspectors	500	11.6	0.5
Tax Examiners, Collectors, and Revenue Agents	650	18.6	0.7
Assessors	280	14.1	0.3
Other Management Support Workers	520	NA	0.6
Civil Engineers, Including Traffic	380	14.8	0.4
Other Engineers	80	NA	0.1
Surveyors and Mapping Scientists	90	29.2	0.1
Civil Engineering Technicians and Technologists	340	19.3	0.4
Electrical and Electronic Engineering Technicians and Technologists	80	29.5	0.1
Drafters	180	11.3	0.2
Surveying and Mapping Technicians and Technologists	220	8.0	0.2
Other Engineering Technicians and Technologists	160	NA	0.2
Chemists	130	20.0	0.1
Foresters and Conservation Scientists	90	16.4	0.1

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Other Life Scientists	230	NA	0.2
Physical and Life Science Technicians and Technologists	50	16.8	0.1
System Analysts, EDP	180	4.6	0.2
Computer Programmers	190	8.5	0.2
Computer Programmer Aides	90	10.1	0.1
Urban and Regional Planners	340	8.9	0.4
Psychologists	60	16.4	0.1
Social Workers, Medical and Psychiatric	860	19.3	0.9
Social Workers - except Medical and Psychiatric	1,910	13.8	2.1
Recreation Workers	1,650	11.0	1.8
Lawyers	160	19.8	0.2
Other Legal Assistants and Technicians	100	NA	0.1
Teachers and Instructors, Vocational Education	60	29.5	0.1
Farm and Home Management Advisors	350	18.3	0.4
Librarians, Professional	680	15.6	0.7
Technical Assistants, Library	650	15.4	0.7
Instructional Coordinators	130	21.6	0.1
Physicians and Surgeons	100	15.6	0.1
Therapists	60	18.3	0.1
Registered Nurses	1,550	9.9	1.7
Licensed Practical Nurses	180	8.5	0.2
Emergency Medical Technicians	1,410	16.0	1.5
Dieticians and Nutritionists	180	7.4	0.2
Other Health Officials	650	NA	0.7
Public Relations Specialists	50	11.4	0.1
Traffic Technicians	100	14.6	0.1
Radio Operators	220	24.8	0.2
Other Professional and Technical Workers	850	NA	0.9
Sales Workers	1,460	NA	1.6
Appraisers, Real Estate	110	10.7	0.1
Other Sales and Related Workers	1,350	NA	1.5
Clerical Workers	19,660	NA	21.3
Welfare Eligibility Workers	2,920	12.8	3.2
Municipal Clerks	490	27.3	0.5
License Clerks	70	14.0	0.1
Library Assistants and Bookmobile Drivers	920	11.8	1.0
Teacher Aides and Educational Assistants	130	16.8	0.1
Secretaries	2,790	5.0	3.0
Stenographers	260	22.9	0.3
Receptionists and Information Clerks	670	14.7	0.7
Typists	1,830	12.5	2.0
Typists, Word Processing	370	12.2	0.4
Personnel Clerks	110	14.7	0.1
File Clerks	440	24.2	0.5
Customer Service Representatives, Utilities	280	23.6	0.3
Bookkeeping, Accounting, and Auditing Clerks	1,150	10.5	1.2
Payroll and Timekeeping Clerks	170	25.2	0.2
Billing, Cost, and Rate Clerks	120	22.9	0.1
General Office Clerks	1,280	9.5	1.4

Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Computer Operators	110	6.6	0.1
Data Entry Keyers	250	10.1	0.3
Other Office Machine Operators	100	NA	0.1
Switchboard Operators	130	24.6	0.1
Mail Clerks - except Mail Machine Operators	80	15.5	0.1
Messengers	50	29.4	0.1
Dispatchers - Police, Fire, and Ambulance	1,700	13.8	1.8
Dispatchers - except Police, Fire and Ambulance	90	17.8	0.1
Meter Readers, Utility	690	24.8	0.8
Stock Clerks, Stockroom or Warehouse	180	11.2	0.2
Other Clerical and Administrative Workers	2,270	NA	2.5
Service Workers	25,770	NA	28.0
Fire Fighting and Prevention Supervisors	1,190	14.2	1.3
Police and Detective Supervisors	1,780	10.7	1.9
Other Service Supervisors	470	NA	0.5
Fire Inspectors	130	8.0	0.1
Fire Fighters	3,460	9.5	3.8
Police Detectives	1,020	11.8	1.1
Police Patrol Officers	7,220	8.9	7.8
Correction Officers and Jailers	920	10.1	1.0
Parking Enforcement Officers	110	24.7	0.1
Bailiffs	220	13.8	0.2
Sheriffs and Deputy Sheriffs	2,510	10.0	2.7
Crossing Guards	480	12.8	0.5
Guards and Watch Guards	230	22.4	0.2
Other Protective Service Workers	830	NA	0.9
Cooks, Institutional or Cafeteria	190	11.8	0.2
Other Food Service Workers	50	NA	0.1
Medical Assistants	80	21.8	0.1
Nursing Aides, Orderlies, and Attendants	140	24.3	0.1
Home Health Aides	780	18.5	0.8
Psychiatric Aides	70	26.7	0.1
Other Health Service Workers	170	NA	0.2
Cleaning and Building Service Workers	1,450	8.2	1.6
Amusement and Recreation Attendants	510	10.7	0.6
Social Welfare Service Aides	1,360	16.1	1.5
Child Care Workers	60	26.9	0.1
Other Service Workers	340	NA	0.4
Agricultural, Forestry, and Fishery Workers	2,080	NA	2.3
Gardeners and Groundskeepers - except Farm	1,830	15.6	2.0
Animal Caretakers	90	12.9	0.1
Other Agricultural, Forestry, and Related Workers	160	NA	0.2
Production and Maintenance Workers	19,060	NA	20.7
Mechanic and Repairer Supervisors	380	22.4	0.4
Construction Trades Supervisors	930	19.8	1.0
Transportation and Material Moving Supervisors	240	27.3	0.2
Other Supervisors	320	NA	0.3

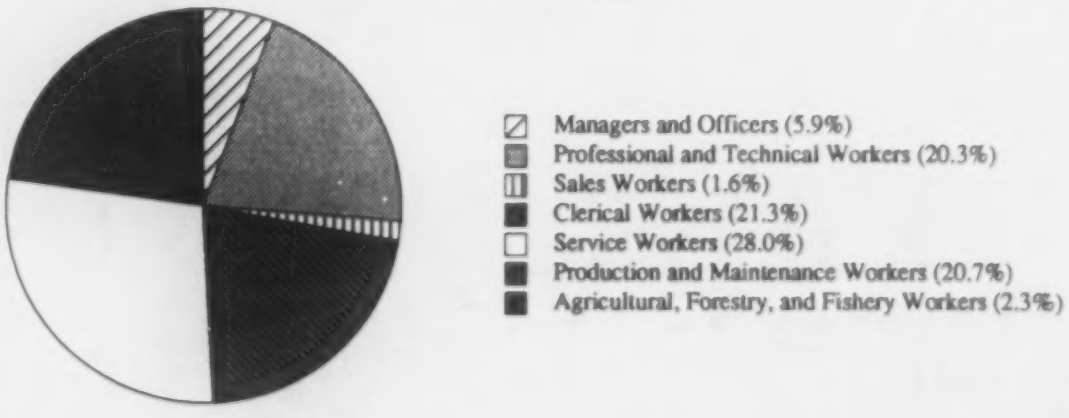
Occupation	Estimated Employment[1/]	Relative Error %	Percent Distribution[1/]
Machinery Maintenance Mechanics, Water and Power Generation	290	8.6	0.3
Maintenance Repairers, General Utility	830	17.2	0.9
Automotive Mechanics	560	13.1	0.6
Bus, Truck, and Diesel Mechanics	160	17.9	0.2
Mobile Heavy Equipment Mechanics	100	6.7	0.1
Heating, Air Conditioning, and Refrigeration Mechanics	70	21.0	0.1
Electric Meter Installers and Repairers	100	24.6	0.1
Mechanical Control and Valve Installers and Repairers	120	16.8	0.1
Other Mechanics, Installers, and Repairers	320	NA	0.3
Carpenters	80	6.0	0.1
Painters and Paperhangers	70	5.9	0.1
Pipelayers	1,110	28.8	1.2
Other Construction Trades Workers	2,240	NA	2.4
Hand Workers	50	22.5	0.1
Water and Waste Treatment Plant Operators	2,510	16.8	2.7
Other Plant System Operators	250	NA	0.3
Truck Drivers, Heavy - inc. Tractor-Trailer	410	18.4	0.4
Bus Drivers	230	16.4	0.2
Service Station Attendants	80	15.4	0.1
Other Transportation Workers	510	NA	0.6
Industrial Truck and Tractor Operators	540	11.9	0.6
Operating Engineers	600	12.9	0.6
Other Material Moving Equipment Operators	210	NA	0.2
Mechanic and Repairer Helpers	340	16.7	0.4
Refuse Collectors	3,480	10.8	3.8
Other Helpers, Laborers, Material Movers-Hand	1,930	NA	2.1

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 17
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Police Patrol Officers	7,220	7.8
Refuse Collectors	3,480	3.8
Fire Fighters	3,460	3.8
Welfare Eligibility Workers	2,920	3.2
Secretaries	2,790	3.0

FIGURE 17
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (5.9%)
Professional and Technical Workers (20.3%)
Sales Workers (1.6%)
Clerical Workers (21.3%)
Service Workers (28.0%)
Production and Maintenance Workers (20.7%)
Agricultural, Forestry, and Fishery Workers (2.3%)

STATE GOVERNMENT

May 1988

This major group includes full-time temporary, full-time permanent, part-time temporary, and part-time permanent employees on the state payroll as of May, 1988. Excluded are persons serving without compensation and persons on leave without pay. In addition, persons employed in educational services and state operated hospitals are excluded.

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Total Employment	44,650	100.0
Managers and Officers	3,150	7.0
Financial Managers	190	0.4
Personnel and Labor Relations Managers	60	0.1
Purchasing Managers	20	0.1
Administrative Services Managers	20	0.1
Engineering, Mathematical, and Natural Science Managers	200	0.4
Medical and Health Service Managers	80	0.2
Construction Managers	20	0.1
Communications, Transportation, and Utilities Managers	20	0.1
Chief Executives, Legislators, and General Administrators	210	0.5
General Managers and Top Executives	30	0.1
Other Managers and Administrators	2,300	5.1
Professional and Technical Workers	15,290	34.2
Accountants and Auditors	610	1.4
Budget Analysts	30	0.1
Other Financial Specialists	30	0.1
Purchasing Agents and Buyers - except Farm Products	60	0.1
Claims Takers, Unemployment Benefits	310	0.7
Employment Interviewers	660	1.5
Personnel and Labor Relations Specialists	400	0.9
Management Analysts	30	0.1
Construction and Building Inspectors	150	0.3
Compliance Officers and Enforcement Inspectors	1,360	3.0
Tax Examiners, Collectors, and Revenue Agents	460	1.0
Assessors	40	0.1
Other Management Support Workers	860	1.9
Civil Engineers - inc. Traffic	920	2.1
Other Engineers	170	0.4
Architects - except Landscape and Marine	20	0.1
Surveying and Mapping Scientists	30	0.1
Civil Engineering Technicians and Technologists	80	0.2
Electrical and Electronic Engineering Technicians and Technologists	40	0.1
Drafters	80	0.2
Surveying and Mapping Technicians	160	0.4
Other Engineering Technicians and Technologists	410	0.9

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Chemists	220	0.5
Other Physical Scientists	110	0.2
Foresters and Conservation Scientists	70	0.2
Agricultural Scientists	40	0.1
Biological Scientists	140	0.3
Physical and Life Science Technicians and Technologists	160	0.4
Systems Analysts, EDP	260	0.6
Computer Programmers	80	0.2
Mathematical Scientists	130	0.3
Economists	40	0.1
Urban and Regional Planners	80	0.2
Psychologists	90	0.2
Other Social Scientists	170	0.4
Social Workers, Medical and Psychiatric	420	0.9
Social Workers - except Medical and Psychiatric	1,390	3.1
Social Service Technicians	300	0.7
Recreation Workers	200	0.4
Judges and Magistrates	880	2.0
Adjudicators, Hearing Officers, and Judicial Reviewers	40	0.1
Lawyers	630	1.4
Law Clerks	370	0.8
Paralegal Personnel	20	0.1
Other Legal Assistants	300	0.7
Teachers and Instructors, Vocational Education	320	0.7
Farm and Home Management Advisors	30	0.1
Librarians, Professional	60	0.1
Technical Assistants, Library	20	0.1
Vocational and Educational Counselors	70	0.2
Instructional Coordinators	40	0.1
Physicians and Surgeons	40	0.1
Therapists	60	0.1
Registered Nurses	220	0.5
Dieticians and Nutritionists	20	0.1
Other Health Professionals and Technicians	410	0.9
Public Relations Specialists	70	0.1
Radio Operators	100	0.2
Other Professional and Technical Workers	780	1.7
Sales Workers	40	0.2
Salespersons, Retail	20	0.1
Other Sales and Related Workers	20	0.1
Clerical Workers	8,610	19.3
Clerical and Administrative Supervisors	480	1.1
Welfare Eligibility Workers	20	0.1
Court Clerks	1,460	3.3
Library Assistants and Bookmobile Drivers	20	0.1
Teacher Aides and Educational Assistants	30	0.1
Secretaries	1,010	2.3
Stenographers	830	1.8
Receptionists and Information Clerks	160	0.4
Typists	1,460	3.3
Typists, Word Processing	90	0.2

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Personnel Clerks	110	0.2
File Clerks	320	0.7
Statistical Clerks	90	0.2
Customer Service Representatives, Utilities	20	0.1
Bookkeeping, Accounting, and Auditing Clerks	570	1.3
Payroll and Timekeeping Clerks	30	0.1
General Office Clerks	800	1.8
Billing, Cost, and Rate Clerks	20	0.1
Computer Operators	90	0.2
Peripheral EDP Equipment Operators	20	0.1
Data Entry Keyers	420	0.9
Other Office Machine Operators	60	0.1
Switchboard Operators	20	0.1
Mail Clerks	60	0.1
Stock Clerks	120	0.3
Other Clerical and Administrative Workers	300	0.7
Service Workers	8,310	18.6
Fire Fighting and Prevention Supervisors	20	0.1
Police and Detective Supervisors	190	0.4
Other Service Supervisors	370	0.8
Fire Fighters	100	0.2
Police Detectives	150	0.3
Police Patrol Officers	2,170	4.9
Correction Officers and Jailers	3,780	8.4
Fish and Game Wardens	280	0.6
Crossing Guards	70	0.2
Guards and Watch Guards	100	0.2
Other Protection Service Workers	290	0.6
Cooks, Institutional or Cafeteria	50	0.1
Food Preparation Workers	20	0.1
Nurses Aides and Orderlies	170	0.4
Cleaning and Building Service Workers	240	0.5
Other Service Workers	310	0.7
Agricultural, Forestry, and Fishery Workers	930	2.1
Forest and Conservation Workers	290	0.6
Gardeners and Groundskeepers - except Farm Products	150	0.3
Animal Caretakers	150	0.3
Other Agricultural, Forestry, and Fishery Workers	340	0.8
Production and Maintenance Workers	8,340	18.7
Mechanic and Repairer Supervisors	340	0.8
Construction, Trades, and Extractive Supervisors	1,100	2.4
Other Supervisors	190	0.4
Other Inspectors and Testers	130	0.3
Machinery Maintenance Workers	80	0.2
Automotive Mechanics	580	1.3
Mobile Heavy Equipment Mechanics - except Engines	120	0.2
Heating, Air Conditioning, and Refrigeration Mechanics	20	0.1
Other Mechanics, Installers, and Repairers	290	0.6
Carpenters	160	0.3

STATE GOVERNMENT

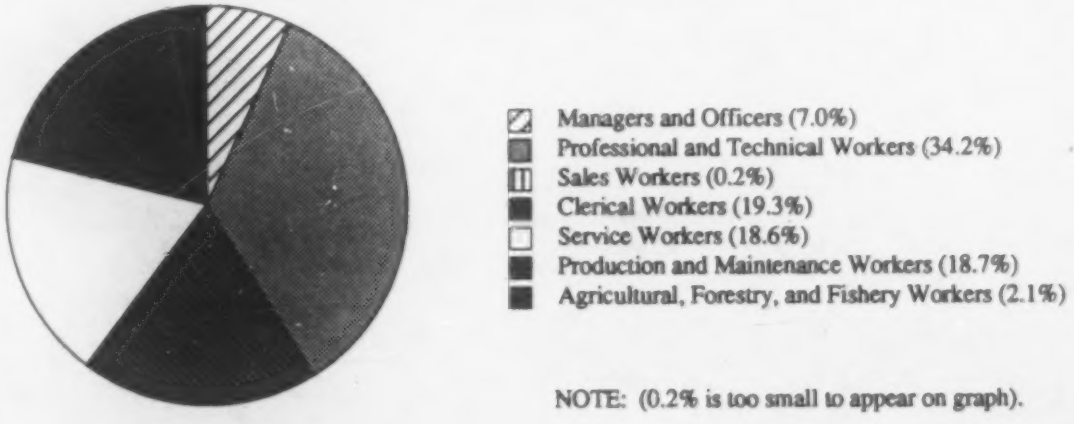
Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Electricians	70	0.2
Painters and Paperhangers	40	0.1
Plumbers, Pipefitters, and Steamfitters	20	0.1
Paving, Surfacing, and Tamping Equipment Operators	400	0.9
Highway Maintenance Workers	1,810	4.0
Precision Production Workers	20	0.1
Machine Setters, Operators, and Tenders	80	0.2
Water and Waste Treatment Plant Operators	20	0.1
Power Distributors and Dispatchers	40	0.1
Truck Drivers, Heavy - inc. Tractor-Trailer	230	0.5
Truck Drivers, Light - inc. Delivery and Route Workers	30	0.1
Other Transportation Workers	290	0.6
Other Material-Moving Equipment Operators	2,050	4.6
Other Helpers, Laborers, Material Movers - Hand	240	0.5

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 18
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Correction Officers and Jailers	3,780	8.4
Police Patrol Officers	2,170	4.9
Highway Maintenance Workers	1,810	4.0
Court Clerks	1,460	3.3
Typists	1,460	3.3

FIGURE 18
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (7.0%)
Professional and Technical Workers (34.2%)
Sales Workers (0.2%)
Clerical Workers (19.3%)
Service Workers (18.6%)
Production and Maintenance Workers (18.7%)
Agricultural, Forestry, and Fishery Workers (2.1%)

NOTE: (0.2% is too small to appear on graph).

FEDERAL GOVERNMENT

June 1988

This major group includes full-time temporary, full-time permanent, part-time temporary, and part-time permanent employees of the Federal Government in North Carolina in 1988.

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Total Employment	48,200	100.0
Managers and Officers	1,460	3.0
Financial Managers	30	0.1
Personnel, Training, and Labor Relations Managers	20	0.1
Administrative Service Managers	50	0.1
Engineering, Mathematical, and Natural Science Managers	120	0.3
Postmasters and Mail Superintendents	910	1.9
Medical and Health Service Managers	80	0.2
Communications, Transportation, and Utilities Managers	30	0.1
General Managers and Top Executives	60	0.1
Other Managers and Officers	160	0.3
Professional and Technical Workers	14,200	29.5
Loan Officers and Counselors	100	0.2
Accountants and Auditors	330	0.7
Budget Analysts	110	0.2
Other Financial Specialists	20	0.1
Purchasing Agents and Buyers - except Farm Products	350	0.7
Personnel Training and Labor Relations Specialists	280	0.6
Management Analysts	150	0.3
Construction and Building Inspectors	120	0.2
Compliance Officers and Enforcement Inspectors - except Construction	730	1.5
Tax Examiners, Collectors, and Revenue Agents	460	1.0
Other Management Support Workers	240	0.5
Aeronautical and Astronautical Engineers	80	0.2
Chemical Engineers	40	0.1
Civil Engineers - inc. Traffic	210	0.4
Electrical and Electronic Engineers	90	0.2
Industrial Engineers - except Safety	40	0.1
Safety Engineers - except Mining	50	0.1
Mechanical Engineers	40	0.1
Other Engineers	220	0.5
Architects - except Landscape and Marine	20	0.1
Electrical and Electronic Engineering Technicians and Technologists	340	0.7
Industrial Engineering Technicians and Technologists	60	0.1
Drafters	20	0.1

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Surveying and Mapping Technicians and Technologists	20	0.1
Other Engineering and Related Technicians and Technologists	420	0.8
Physicists and Astronomers	20	0.1
Chemists, except Biochemists	200	0.4
Atmospheric and Space Scientists	90	0.2
Geologists, Geophysicists, and Oceanographers	40	0.1
Other Physical Scientists	140	0.3
Foresters and Conservation Scientists	200	0.4
Agricultural and Food Scientists	220	0.5
Biological Scientists	490	1.0
Medical Scientists	20	0.1
Other Life Scientists	20	0.1
Biological, Agricultural, and Food Technicians and Technologists - except Health	240	0.5
Other Physical and Life Science Technicians and Technologists	190	0.4
Systems Analysts, EDP	520	1.1
Computer Programmers	40	0.1
Computer Programmer Aides	150	0.3
Operations and Systems Researchers and Analysts - except Computer	20	0.1
Statisticians	50	0.1
Economists - inc. Market Research Analysts	30	0.1
Psychologists	50	0.1
Other Social Scientists	60	0.1
Social Workers - except Medical and Psychiatric	70	0.1
Recreation Workers	40	0.1
Clergy	20	0.1
Judges and Magistrates	30	0.1
Lawyers	120	0.2
Paralegal Personnel	20	0.1
Other Legal Assistants and Technicians, except Clerical	400	0.8
Teachers and Instructors, Vocational	620	1.3
Librarians, Professional	80	0.2
Teacher Aides, Paraprofessional	170	0.4
Physicians and Surgeons	390	0.8
Dentists	30	0.1
Veterinarians and Veterinary Inspectors	60	0.1
Corrective and Manual Arts Therapists	20	0.1
Other Therapists	60	0.1
Registered Nurses	960	2.0
Licensed Practical Nurses	360	0.8
Physicians Assistants	50	0.1
Pharmacists	70	0.1
Dieticians and Nutritionists	30	0.1
Medical and Clinical Laboratory Technologists	200	0.4
Dental Hygienists	20	0.1
Medical Records Technicians and Technologists	60	0.1
Radiologic Technicians	80	0.2
Other Health Professionals and Technicians	170	0.4
Writers and Editors	50	0.1

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Photographers	30	0.1
Artists and Related Workers	20	0.1
Athletes, Coaches, Umpires and Related Workers	30	0.1
Airplane Dispatchers and Air Traffic Controllers	410	0.9
Other Professional and Technical Workers	2,180	4.5
Sales Workers	260	0.6
Sales Supervisors	40	0.1
Appraisers, Real Estate	20	0.1
Salespersons, Retail	170	0.4
Cashiers	30	0.1
Clerical Workers	20,910	43.4
Clerical Supervisors	860	1.8
Insurance Adjusters, Examiners and Investigators	50	0.1
Insurance Claims Clerks	160	0.3
Travel Clerks	20	0.1
Real Estate Clerks	20	0.1
Other Secretaries	1,170	2.4
Stenographers	90	0.2
Receptionists and Information Clerks	20	0.1
Typists	860	1.8
Personnel Clerks	390	0.8
Procurement Clerks	90	0.2
Statistical Clerks	20	0.1
Interviewing Clerks	260	0.5
Bookkeeping, Accounting, and Auditing Clerks	520	1.1
Payroll and Timekeeping Clerks	110	0.2
General Office Clerks	320	0.7
Mail Machine Operators	40	0.1
Computer Operators	100	0.2
Data Entry Keyers	100	0.2
Other Office Machine Operators	60	0.1
Switchboard Operators	70	0.1
Other Communications Equipment Operators	50	0.1
Mail Clerks - except Mail Machine Operators	300	0.6
Mail Carriers, Postal Service	6,830	14.2
Clerks, Postal Service	2,360	4.9
Messengers	30	0.1
Production Planning and Expediting Clerks	380	0.8
Stock Clerks, Stockroom or Warehouse	860	1.8
Traffic, Shipping, and Receiving Clerks	3,440	7.1
Other Material Recording, Scheduling, Workers	60	0.1
Other Clerical and Administrative Workers	1,280	2.6
Service Workers	2,880	6.0
Fire Fighting and Prevention Supervisors	60	0.1
Police and Detective Supervisors	60	0.1
Other Service Supervisors	120	0.2
Fire Fighters	260	0.5
Correction Officers and Jailers	100	0.2
U. S. Marshalls	20	0.1
Criminal Investigators, Federal	210	0.4

Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Guards and Watch Guards	60	0.1
Other Protective Service Workers	40	0.1
Butchers and Meat Cutters	70	0.1
Cooks, Institutional or Cafeteria	150	0.3
Combined Food Preparation and Service Workers	310	0.6
Dental Assistants	120	0.2
Nursing Aides, Orderlies and Attendants	500	1.0
Physical and Corrective Therapy Assistants and Aides	30	0.1
Pharmacy Assistants	90	0.2
Other Health Service Workers	160	0.3
Janitors and Cleaners - except Maids and Housekeeping Cleaners	430	0.9
Pest Controllers and Assistants	30	0.1
Social Welfare Aides	60	0.1
Other Service Workers	30	0.1
Agricultural, Forestry, and Fishery Workers	290	0.6
Forest and Conservation Workers	160	0.3
Gardeners and Groundskeepers - except Farm	20	0.1
Other Agricutural, Forestry, and Fishery Workers	100	0.2
Production and Maintenance Workers	8,190	17.0
Mechanic and Repairer Supervisors	400	0.8
Construction Trades and Extractive Supervisors	50	0.1
Production and Operative Supervisors	120	0.2
Transportation and Material Moving Supervisors	80	0.2
Helper and Laborer Supervisors	70	0.1
Other Supervisors	30	0.1
Production Inspectors, Testers and Graders	40	0.1
Other Machinery Maintenance Mechanics	210	0.4
Machinery Maintenance Workers	120	0.2
Maintenance Repairers, General Utility	410	0.8
Automotive Mechanics	330	0.7
Bus and Truck Mechanics	20	0.1
Mobile Heavy Equipment Mechanics - except Engines	220	0.5
Aircraft Mechanics	460	0.9
Aircraft Engine Specialists	240	0.5
Central Office and PBX Installers and Repairers	40	0.1
Electric Motor, Transformer and Related Repairers	30	0.1
Electronic Repairers, Commercial/Industrial Equipment	320	0.7
Electrical Powerline Installers and Repairers	60	0.1
Electrical Installers and Repairers, Transportation Equipment	200	0.4
Other Electrical and Electronic Equipment Mechanics Installers and Repairers	110	0.2
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	110	0.2
Precision Instrument Repairers	80	0.2
Mechanical Control and Valve Installers and Repairers	170	0.3

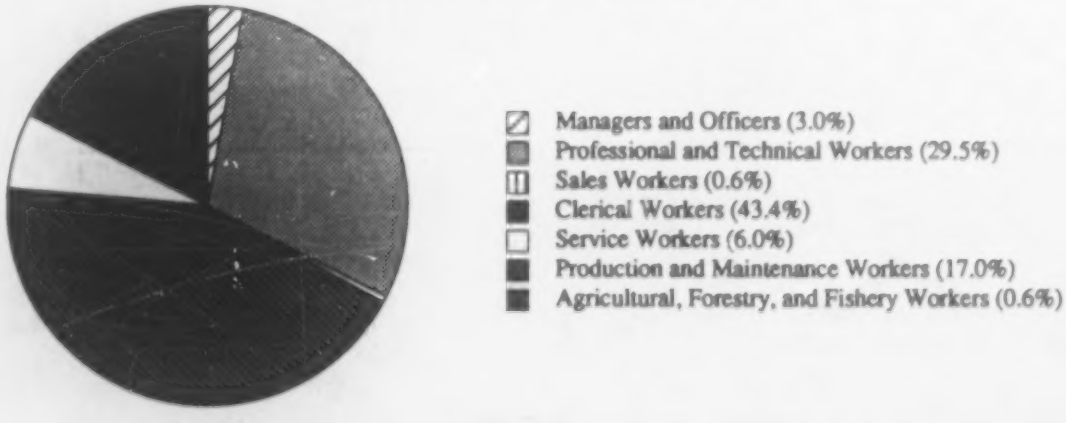
Occupation	Estimated Employment[1/]	Percent Distribution[1/]
Other Mechanics, Installers, and Repairers	180	0.3
Carpenters	160	0.3
Electricians	120	0.3
Stonemasons	20	0.1
Painters and Paperhangers	140	0.3
Plumbers, Pipefitters, and Steamfitters	150	0.3
Other Construction and Extractive Workers	40	0.1
Machinists	150	0.3
Sheet Metal Workers	310	0.6
Other Precision Textile, Apparel and Furnishing Workers	20	0.1
Other Precision Workers	40	0.1
Precision Dental Laboratory Technicians	20	0.1
Combination Machine Tool Setters and Set-up Operators, Metal and Plastics	30	0.1
Electrolytic Plating and Coating Machine Operators and Tenders, Metal and Plastics	30	0.1
Other Machine Operators and Tenders, Metal and Plastics	60	0.1
Printing Press Machine Operators and Tenders	20	0.1
Other Machine Setters and Set Up Operators - except Metal and Plastics	30	0.1
Other Machine Operators and Tenders, Metal and Plastics	70	0.1
Welders and Cutters	80	0.2
Assemblers and Fabricators	50	0.1
Other Hand Workers	60	0.1
Water and Waste Treatment Plant Operators	110	0.2
Stationary Engineers	110	0.2
Other Plant and System Operators	20	0.1
Truck Drivers, Heavy - inc. Tractor-Trailer	30	0.1
Truck Drivers, Light - inc. Delivery and Route Workers	50	0.1
Other Motor Vehicle Operators	240	0.4
Aircraft Pilots and Flight Attendants	40	0.1
Other Transportation and Related Workers	70	0.1
Crane Operators and Tenders	20	0.1
Industrial Truck and Tractor Operators	60	0.1
Operating Engineers	70	0.1
Other Material Moving Equipment Operators	80	0.1
Other Freight, Stock, and Material Movers - Hand	20	0.1
Hand Packers and Packagers	20	0.1
Vehicle Washers and Equipment Cleaners	100	0.2
Other Helpers, Laborers, and Material Movers - Hand	1,450	3.0

[1/] Details may not add to totals due to rounding or data suppression.

TABLE 19
THE FIVE LARGEST SPECIFIC OCCUPATIONS

Occupation	Estimated Employment	Percent of Total Employment
Mail Carriers, Postal Service	6,830	14.2
Traffic, Shipping, and Receiving Clerks	3,440	7.1
Clerks, Postal Service	2,360	4.9
Registered Nurses	960	2.0
Postmasters and Mail Superintendents	910	1.9

FIGURE 19
PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY


Managers and Officers (3.0%)
Professional and Technical Workers (29.5%)
Sales Workers (0.6%)
Clerical Workers (43.4%)
Service Workers (6.0%)
Production and Maintenance Workers (17.0%)
Agricultural, Forestry, and Fishery Workers (0.6%)

Methodology

A questionnaire was mailed to each of the sampled establishments in order to obtain occupational data. The total occupational employment for an industry was then estimated for the responding establishments.

Sample

The sample was drawn using procedures outlined in the OES Survey Operations Manual. Establishments were divided into different size classes by number of employees. All establishments with more than 250 employees were sampled. Establishments in each smaller size class were sampled in proportion to the employment in the size class; however, no establishment with fewer than four employees was sampled. Employment in these establishments was accounted for in the next larger size class. Each unit that was sampled was assigned a weight according to the ratio of units sampled in that size class. For example, when all units in a size class were sampled, the weight was one. When the units were sampled at a ratio of one out of four, the sampled unit was given a weight of four. The weighted establishment then represented itself and three other establishments

Collection

Data collection began in June 1988 and ended in March 1989. Two follow-up mailings, and telephone calls were made to those establishments whose response was vital for statistical purposes, to those who had difficulty completing the questionnaire, or to those where clarification of the response was necessary.

Estimates

Data from the questionnaires were keyed and loaded to tape. The tape was processed using the OES Survey Processing and Management Systems (SPAM) programs to sort and screen the data. The estimating programs sorted the data into size-class cells. The weighted employment of each occupation in each cell was then estimated individually and summed across all cells in order to produce the final occupational employment estimate for each industry.

Error

Two types of errors, sampling and non-sampling, can affect the results of a survey. Sampling error is the difference between the estimates developed from data collected from a sample and the data collected from the universe from which the sample was drawn. Sampling error is measurable and is expressed as relative error. The relative error shown in the publication is such that the chances are two out of three that the results of comparable universal data collection would not differ by more than the percentage shown. Non-sampling error can arise from faulty questionnaire design, inability to collect necessary data, inaccuracy of data collected, and ineffective processing techniques. Non-sampling error cannot be measured.

Publication

After the data file was processed through the OES estimates programs, a computer printout was received which contained the estimated employment for each occupation, the relative error of the occupational estimate, the percent distribution of the occupational employment, the number of employees reported in each occupation, and the number of establishments which reported each occupation.

Industries were surveyed at the 3-digit SIC level, however, published data are at the 2-digit level of detail. The following exceptions were made to this format. All Federal government was supplied by the BLS Regional Office in Atlanta. Summary data for State government employment was provided by the N. C. Department of Administration's data processing unit.

Occupational data were not published for industries when the industry employment was less than 1,000. The estimated employment for occupations was rounded to the nearest ten. The estimated employment was put in a residual category when the estimated employment for an occupation was less than 15 or less than 0.05 percent of the total group employment, when the relative error was more than 35.0 percent, or when an occupation was not reported by at least four establishments. Although they are not published here, the suppressed industry and occupational data will be included in the industry/occupational matrix.

Relative error is not applicable (NA) for residual categories, occupational group totals, and total employment because it is not additive. The percent distribution was computed on the unrounded employment estimates, therefore, some occupations with the same published estimated employment may not bear the same percent distribution.

NOTE: Due to rounding the sum of the occupations may not equal the total employment of the occupational category.

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